BOSTON PUBLIC LIBRARY
3 9999 08656 275 6

No. 4/609a-62

THE TRUSTEES OF THE
PUBLIC LIBRARY
OMNIVM
LVX
CIVIVM
OF THE CITY OF
BOSTON
1852 1878

JAN 22 1909 FEB 15
JUN 6 APR 8
1913
APR 30
SEP 19
MAR 9
DEC 4
FEB 17 OCT 18
NOV 16
18461
MAY -1 1928

PRACTICAL

PHRENOLOGY.

7609.a.62

BY

SILAS JONES.

BOSTON:
RUSSELL, SHATTUCK, & WILLIAMS.
SOLD BY THE
PRINCIPAL BOOKSELLERS IN THE UNITED STATES.

M DCCC XXXVI.

Subst. for
7609a.62

Entered according to the Act of Congress, in the year 1835, by SILAS JONES, in the Clerk's office of the District Court of the District of Massachusetts.

C
246.507
May 22. 78

CAMBRIDGE PRESS:

METCALF, TORRY, AND BALLOU.

PREFACE.

Having been engaged in lecturing on the science of Phrenology more or less for some time past, in several States of the Union, and at the same time having made observations upon the character and organization of several thousands of individuals, principally of the middle and higher classes, I found myself in possession of so many facts, gathered under my own eye and fresh in recollection, that I had seldom occasion to refer to the collections of others, however valuable they may be. When lecturing, I always found the attention most profound, when I related what I had seen, and I soon found that time did not allow me to do even this, to the extent I could wish. I was frequently requested to publish a work on the subject. In consequence of this, I conceived the plan not of publishing my facts; but of preparing a little manual, which would assist those who might attend my Lectures, and serve as an outline of my course. But when engaged in the undertaking, I determined to add to it both facts for illustration, and the method of application of the science, which I had adopted in practice, by which those who wished might be aided in gathering facts for themselves. The volume of nature is the great book for study, and its pages are ever open. All that books can do is to assist in the interpretation of its language. The work will go to the public less perfect than I could wish, notwithstanding the great labor I have bestowed, not only in its composition, but in attention to the cuts. I am aware, opinions are given with a directness and confidence which may appear like too great assurance. But it would be affectation to speak doubtingly of what one has the certain knowledge of ocular demonstration. It would be a deference to doubters and unbelievers, which I am little inclined to manifest. True it is,

many of the *savans* of this and other countries are not yet ready to avow themselves believers in Phrenology. The aged of this class are too much settled in their old opinions — too much interested in their continuance — and too little accustomed to observe nature, to lead us to expect much from them. But the young, ardent, and untrammelled, hail it with joy every where; and the independent lovers of truth, among individuals of every pursuit, readily become its avowed friends and patrons. Teachers begin to look to it, as the science on which their art is founded, and in some instances it is adopted in schools, as one of the regular courses of study. So editors of periodicals invite its advocates to their columns, and opposition to it is less virulent and less respectable than formerly. On the whole, therefore, I do not know that it could be desired that its diffusion should be more rapid, for if it were, it would be eagerly seized by those who have little knowledge and less interest in it, for mere purposes of gain — a prostitution of a lofty science, revolting to taste and correct principle.

I will make no claims to originality. If any thing new be contained in the following pages, it will not escape the observation of the intelligent reader. The method adopted is that of analysis and synthesis, analagous to the present most approved mode of acquiring a foreign language. This tends to keep out of view the common error, that individual organs necessarily manifest distinct traits of character. The individual is first viewed as a whole, then in reference to the several physical systems, as it regards proportion; then in relation to the regions of the head; and lastly, by a critical inspection of the organs. Then commences the synthesis, and inference of mental and moral manifestations. The mind then rests upon the individual as a whole, manifesting traits of character, and not as exhibiting mere elementary principles, and the science appears to be in the most beautiful harmony with truth.

S. J.

Boston, Dec. 1, 1835.

CONTENTS.

		Page
CHAPTER I.	Introduction.	13
" II.	First fundamental doctrine of Phrenology — the connexion between manifestation of mind and mental organs.	15
" III.	Plurality of Mental Organs.	17
" IV.	Relative Size of the Organs.	23
" V.	Brief Anatomical View of the Human Brain.	25
" VI.	Scull.	32
" VII.	The Doctrine of Proportion.	33
" VIII.	Division of the Faculties.	36
ORDER I.	THE AFFECTIVE FACULTIES.	37
GENUS I.	PROPENSITIES.	37
	Vitativeness.	37
	Alimentiveness.	39
	1. Destructiveness.	41
	2. Amativeness.	44
	3. Philoprogenitiveness.	46
	4. Adhesiveness.	49
	5. Inhabitiveness.	51
	6. Combativeness.	53
	7. Secretiveness.	56
	8. Acquisitiveness.	59
	9. Constructiveness.	62
GENUS II.	SENTIMENTS.	64
	10. Cautiousness.	64
	11. Approbativeness.	66
	12. Self-Esteem.	68
	13. Benevolence.	71
	14. Reverence.	74
	15. Firmness.	78
	16. Conscientiousness.	80
	17. Hope.	83
	18. Marvellousness.	85

Page

19. Ideality. 89
20. Mirthfulness. 91
21. Imitation. 93

ORDER II. INTELLECTUAL FACULTIES. . . 94

GENUS I. EXTERNAL SENSES. . . . 94

Feeling of Touch. 95
Taste. 96
Smell. 97
Hearing. 97
Sight. 100

GENUS II. Intellectual Faculties which perceive the existence of external objects, and their physical qualities. . . 102

22. Individuality. 102
23. Form. 106
24. Size. 107
25. Weight and Resistance. . . . 108
26. Color. 112

GENUS III. Intellectual Faculties which perceive the physical relations of objects to each other. 116

27. Locality. 116
28. Order. 118
29. Number. 120
30. Eventuality. 121
31. Time. 125
32. Tune. 128
33. Language. 129
34. Comparison. 133
35. Causality. 134

CHAPTER IX. General View of the External Senses, and of the Cerebral Organs. . . 138

" X. Temperaments. 144

" XI. Quality of the Brain. . . . 153

" XII. Primary and Secondary Influence of the Affective Faculties explained. . 157

" XIII. Activity of the Intellectual Faculties — their power to excite the Feelings. 159

Page

CHAPTER XIV. Activity of the Feelings, and their effect upon the Intellect. - - - - 161
" XV. Free Agency — Accountability — Habit. 162
" XVI. Degrees of Moral Liberty — Fatality. 166
" XVII. Attention. - - - - - - 169
" XVIII. Perception, Conception, and Imagination. 171
" XIX. Memory. - - - - - - - 173
" XX. Judgment. - - - - - - 180
" XXI. Taste. - - - - - - - - 184
" XXII. Sympathy. - - - - - - 187
" XXIII. Definitions. - - - - - - - 190
" XXIV. On the Qualifications necessary to the Practical Application of Phrenology. 194
" XXV. How Proof of the Science is to be Obtained. 200
" XXVI. Examination of Heads by professed Phrenologists. - - - - - - - 203
" XXVII. Further Remarks upon Examinations. 205
" XXVIII. Lectures on Phrenology. - - - - 209
" XXIX Directions for observing Temperaments. 211
" XXX. How Judgments are to be formed on the Quality of the Brain. - - - 213
" XXXI. On the Observations of the Size of the Head, in reference to Mental Power. 214
" XXXII. Differences in general Formation of Heads noticed. - - - - - - - 219
" XXXIII. Classification of Heads. - - - 224
" XXXIV. Heads remarkable for the Predominance of the Sincipital and Frontal Regions. 230
" XXXV. Of the Forms of the Forehead. - - 241
" XXXVI. Of the mode of illustrating Organs, Talents, and Characters combined. - - 242
" XXXVII. Character and Talents of Robert Burns. 243
" XXXVIII. Character and Talents of Richard Brinsley Sheridan — a Dramatist and Orator. 265
" XXXIX. Chief Justice Marshall. — Talents of a Statesman and Judge, and character of a modest, firm, honest, independent Man. 271

Page

CHAPTER XL. General Washington — a Sketch of his Character and Talents upon Phrenological Principles. - - - - 277

" XLI. The Character and Talents of Lafayette. 282

" XLII. Dr. Franklin, his Character and Talents — a Philosopher, a Politician, Moralist, and Man of Businesss, prudent, amiable, fascinating, honest, and persevering. 292

" XLIII. An Ambitious Character, with the Talents of a Politician. - - - - 304

" XLIV. Michael Angelo Buonaroti — Talents of a Painter, Sculptor, Architect, etc. Character of a firm, honest, stern, independent, industrious, but irritable Man. 309

" XLV. George Moreland, a Painter. - - - 319

" XLVI. Mrs. Maeder, better known as Miss Clara Fisher. — Talent — an Actress. - 321

" XLVII. G. M. Gottfried, a Murderer by Poison. 323

" XLVIII. Black Hawk, an Indian Chief and Warrior. 327

" XLIX. Brief Notice of Dr. Gall. - - - 329

" L. Remarks on the best method of observing some of the Perceptive Organs. - 332

" LI. Change of Character and Talents, and a simultaneous change of the form of the Head. - - - - - - - 333

LIST OF CUTS.

Page

1. Upper surface of the Brain. 26
2. Basis of the Human Brain. 27
3. View of the lateral surface of the Brain. - - 28
4. Map of the Ear. - - - 99
5. Map of the Eye. - - 101
6. Frontal Sinus. - - - 104
7. Two Obelisks. - - 109
8. Head of an Idiot. - - 216
9. Three views of the Head of Williams, a Murderer. 225
10. Three views of the Head of Bishop, a Murderer. 227
11. Head of Dr. Tilton. - 230
12. Head of Dr. Rush. - - 234
13. Head of Robert Burns. - 248
14. Four views of the Scull of Burns. 249
15. Head of Richard B. Sheridan. 265
16. Head of Judge Marshall. - 271
17. Head of Gen. Washington. 277
18. Head of Lafayette. - - 283
19. Head of Franklin. - - - 293
20. Fancy Head. - - - 304
21. Head of Michael Angelo. - 309
22. Head of George Moreland. 319
23. Head of Mrs. Maeder, or Clara Fisher. - - - - 322
24. Two views of the Head of G. M. Gottfried. - - - 324
25. Head of Black Hawk. - - 327
26. Head of Dr. Gall. - - - 329
27. An enlarged view of an Eye. 332

PRACTICAL PHRENOLOGY.

CHAPTER I.

INTRODUCTION.

PHRENOLOGY is the science, which treats of the intellectual faculties, moral feelings, and propensities of man; and it unfolds the *laws* of their exercise and manifestation, as connected with physical organization. The term Phrenology is derived from two Greek words, which signify mind and discourse.

It has grown up out of a most laborious collection and comparison of facts, in accordance with the Baconian, or inductive system, relying for its truth upon the uniformity of natural laws.

Dr. Gall, a distinguished physician of Vienna, was the founder of the science, and devoted most of his time and attention to this great work for nearly forty years. Dr. Spurzheim was for many years associated with Dr. Gall in his labors, and devoted himself to the science for more than thirty years. The degrees, in which each contributed towards rearing the science, together with the assistance rendered by others, from time to time, will be found by a perusal of their works, which contain the history of their discoveries.

Their are certain great principles generally admitted, which are necessarily *recognised* by the science of Phrenology.

The *first* of these is, that children are born with different *dispositions* and *capacities;* that in the same family or neighbourhood, there are *innate* differences in the dispositions and talents of the individuals, and that these differences are as striking as those of size, form, complexion, and constitution.

The *second* principle recognised by Phrenology is, that, notwithstanding these original innate differences continue through life to modify character to a great extent, every one is, and may be, *influenced* by education, health, climate, and the thousand circumstances which surround us. And that character is the result of the combined influence of all these great principles.

Phrenology adopts a *third* generally recognised principle, beautifully expressed by the late Mr. Wirt, that "in all sound minds the germ of all the faculties exists," or in other words, that in each mind there is a certain and determinate number of faculties. Thirty-five of these faculties are already considered as sufficiently established. A few others are supposed to exist, but are not yet considered as sufficiently proved.

The *fourth* doctrine *recognised* by Phrenology is, that the brain and the external senses are the material organs, through which all knowledge is acquired, and thought and feeling are manifested. I say *recognised*, because I believe, that this doctrine is now generally believed by all those, who have the slightest acquaintance with physiology or anatomy. The old notion, that the moral sentiments have their seat and centre in the thoracic and abdo-

minal viscera, is generally exploded; and the expression, that indicates the heart to be the seat of the feelings, is now generally understood in a figurative sense, which has its origin in the effect of any sudden emotion upon this important organ, from its sympathy with the brain.

The *fifth* and last doctrine recognised by Phrenology, of which it is necessary to make particular mention, is, that the mind is a unity, although it manifests itself through a plurality of faculties.

The fundamental doctrines of Phrenology remain now to be stated.

CHAPTER II.

FIRST FUNDAMENTAL DOCTRINE OF PHRENOLOGY — THE CONNEXION BETWEEN MANIFESTATION OF MIND AND MENTAL ORGANS.

ALTHOUGH it is generally admitted, that the brain is the material organ of thought and feeling, the science of Phrenology carries the doctrine of the nature and extent of this union far beyond any former philosophy.

1. The mind does not in *this* life manifest itself independently of the exercise of the brain, its material organ.

2. That every mental affection, and every exercise of the intellect, requires a particular and corresponding state of the brain, just as every exercise of vision requires a particular state of the organ of sight.

3. That the more perfect the state of the organ, the more perfect will be the manifestation of the mind, as

perfection of sight depends on the perfection and activity of its organ. As it is physiologically absurd to speak of life independent of organization, so is it phrenologically absurd to speak of mental manifestations independent of organic activity and agency. There is sometimes a morbid activity of mind, manifested when the organ is diseased, far more intense than any thing known to the healthy state. But the excited action of the brain, in these cases, always corresponds to the manifestation of mind. The manner, in which an all-wise Creator has brought about this intimate connexion between the immaterial spirit and material organization, is known only to himself. He has been pleased, in his volume of Revelation, to open to our *faith* and our *hope* a prospect of a future and separate state of existence, and on this we must rely. But while the soul is connected with organization, it becomes us to study it in this connexion, and this only. If we do not, we neglect many of the great and important truths, on which our happiness and safety depend, and are guilty of a disrespect for the *natural* laws of our Creator — laws no less entitled to our religious regard than those contained in his revealed will.

As in speaking of the sun as rising and setting, we are guilty of a slight error of speech, yet in strict accordance with its apparent motion; so we are guilty of a similar error, when we speak of mind as merely a *function* of the brain; yet by so doing, we more readily comprehend the laws of mind, than by any other mode of expresssion; — because we avail ourselves then of all the reflected light thrown upon the subject, by contemplating the functions of the whole human system. We speak then as physiologists are obliged to speak, when treating of the func-

tions of the brain, in connexion with the functions of all the physical organs. This will enable us to understand how the mind can become (in the language of a writer in the Christian Spectator) "young and old, mature and decrepit, weak and strong, sane and insane, *drunk and sober*, asleep and awake; — how it may be fatigued by exercise, prematurely enfeebled by ill-timed or too powerful exertion — rendered idiotic by a blow, or comatose by a hemlock, — states or modifications of the thinking principle perfectly unintelligible (indeed shocking to thought) on the supposition of a purely spiritual or independent existence, but which are in perfect harmony with a presently dependent existence, and in entire accordance with those which *functions* undergo under certain conditions, diseased or healthy, of their organs."

CHAPTER III.

PLURALITY OF MENTAL ORGANS.

We have already recognised the doctrine, that there are a plurality of *faculties*. We will now state the second great phrenological doctrine, viz. that every distinct faculty is manifested by an appropriate organ, or, in the language of physiology, that the brain is a combination of parts, or organs, performing distinct functions, or manifesting distinct faculties.

A *faculty*, as applied to Phrenology and defined by Mr. Combe, *indicates the particular state, into which the*

mind enters, when influenced by particular organs. It is therefore the function of a physical organ to manifest mind in the form of faculties agreeable to the laws of organization and exercise.

There are several proofs of the plurality of mental organs, the force of which may be more or less appreciated, without resorting to the great source of evidence, derived from observation of uniformity of cerebral development and mental manifestation, by which the organs are regarded as established.

The *first* of these is derived from *analogy*. Through the whole range of the animal system, each distinct function is performed by a distinct organ. The stomach digests food, the liver secretes bile, the heart propels the blood, the lungs perform the function of respiration. There is no ascertained example of one nerve performing two functions, such as feeling and communicating motion, or seeing and hearing, tasting and smelling. So if reasoning be an act or function, different from loving or contending, analogy would seem to require us to look for, and to expect to find, distinct organs.

2. Man manifests more faculties than *any* brute animal; and a dissection of the brain of man, and of the several classes of animals, furnishes evidence, that the brain of the former possesses several more convolutions or organs, and these are appropriated to sentiments and higher intellectual powers. No one will be ready to believe, that the lowest and smallest animal, that has an apparatus called a brain, has in that apparatus as many distinct folds or parts, as has the human brain.

3. It is well known, that the different faculties of children manifest themselves at different periods. In infancy

the feeling of attachment, disposition to destroy, and desire of food, are all quite unduly active. It will be found on examination of the brains of children, they appear pulpy and imperfectly organized. And the several portions of the brain increase in growth at different ages. The cerebellum is scarcely the twentieth part of the brain of a child, but of an adult it is often a sixth or seventh part.

4. All must have noticed most decided differences in the characters of the two sexes. All the faculties and their organs belong to each sex, but their characters are *modified*, in consequence of their being possessed in different degrees. In man some of the feelings necessary to the preservation of the species are strongest, while others are strongest in women. Woman has decidedly the stronger love of offspring. Among little children the girl has the doll baby, and the boy gets astride a stick, and delights in a top, a ball, or drum. Women have stronger attachments than men, have greater desires to please, more cautiousness, and are more fearful, and easier of belief, — while man has more courage, self-esteem, and firmness. And it is a fact well established, that the heads of the two sexes differ, just as their faculties do. A practical phrenologist can easily tell a scull of a male from that of a female.

5. The exercise of one faculty does not produce *general* fatigue, but only of that which has been exercised. If there were but one general organ for all the faculties, the whole brain would be fatigued, and change of employment would be no more relief, than walking south would be to a man, who had been walking north until his legs were fatigued. But we may change from one

employment to another, and one study to another, in such manner, as to give relief and rest to the organs successively all day. This is practically understood, and studies in schools are, to some extent, arranged in reference to it.

6. But no device will enable us to dispense with sleep. And this state furnishes strong proof of a plurality of mental organs. Sleep, says Machnish, exists in two states, in the complete, and incomplete. The first is characterized by torpor of the various organs of *animal* life, viz. of the brain, the external senses, and of voluntary motion. Incomplete sleep, or dreaming, is the active state of one or more of the cerebral organs, while the remainder are in repose. The organs of the senses and of voluntary motion may, or may not, be in repose. In dreaming there remains an activity of the perceptive organs, or at least a part of them, while others are asleep. Hence we have a consciousness of objects, their form, size, colors, position, location, &c. just as if stimulated by the impressions communicated by the external senses; while, in consequence of the repose of the reflective organs, we are unable to rectify the illusions; and (by the activity of marvellousness, one of the organs) the scenes passing before us seem to have a real existence. This view of the phenomena of dreaming has alone convinced many, of the plurality of mental organs.

7. Partial genius, and partial and unequal susceptibility of feeling, are considered as strong proof of the plurality of mental organs. One excels in poetry, another in music, a third in numbers, — one is benevolent, but indifferent to children — another is excessively fond of children, and deficient in general good will. If the

brain be but one general organ, how shall we account for this state of things?

6. *Monomania,* or partial insanity, presents a state of facts wholly inconsistent with the supposition, that the mind has but a single organ. It is well known, that insanity is usually more or less partial. Sometimes people are deranged only in a single feeling, or faculty, and perfectly sane in all the rest. Such cases have furnished much perplexed discussion in courts of justice, and have been inexplicable to the medical profession. It is now well understood, that madness is exclusively an affection, not of the mind, but of the brain. The mind is never old, or young, or diseased.

9. Partial injuries to the brain do not equally affect all the mental powers.

The lines of separation between each of the cerebral organs have not yet been ascertained. On this subject Dr. Spurzheim remarks, that "the first anatomical principle of the nervous system generally applies to the brain in particular, that is to say, this mass is not a simple unit, but a collection of many peculiar instruments." The physiological and pathological proofs of its truth are contained above. Many writers, among others Dr. Gall, say that the faculties of animals are multiplied in proportion as their brains are complicated. Were this remark universally correct, it would serve as a positive proof of the brain's being an assemblage of organs. But without reckoning the difficulty, not to say the impossibility, of determining anatomically, even in birds and mammiferous animals, the constituent parts of the brain, and admitting that as true, which mechanical anatomy demonstrates, viz. that the brain is made up of a greater or

smaller number of bundles, it must still be observed, that each particular bundle cannot legitimately be assumed as composing a peculiar organ."

* * * * *

"The lobes may always be distinguished from one another, and certain convolutions from others. The general form and elevation of the convolutions are remarkably regular. Thus, the transverse convolutions of the superior lateral and middle parts of the hemispheres are never found running in any other direction, never longitudinally, for example. Those that lie longitudinally, again, are never met with disposed transversely. * * One, therefore, who has studied the forms of the peripheral expansions of the cerebral organs, will always be able to distinguish in man the organ of acquisitiveness from that of destructiveness, and that of veneration from either, as easily as an ordinary observer will the olfactory from the optic nerve. It must be admitted, however, that convolutions, forming parts of any particular apparatus, present many modifications, in reference to the size and number of anfractuosities. Such modifications occur, not only in the brains of different individuals, but even in the two hemispheres of the same brain. Variety, however, need not be confounded with essential configuration. * * * I have remarked, that the organs, which are best nourished and most largely developed, have generally the smallest number of anfractuosities."

The nature of this work will not permit us to go into a detailed account of the structure of the commissures, and of the masses at the base of the convolutions. For this information I must refer the curious reader to Spurzheim's Anatomy of the Brain, from which the above is extracted.

CHAPTER IV.

RELATIVE SIZE OF THE ORGANS.

The *third* fundamental doctrine of Phrenology is, that the comparative strength and activity of the several intellectual and effective faculties, in each individual, is generally indicated by the relative size of the organs. We say generally, for where a moderate sized organ has been much *exercised*, and a large one much neglected, the relative size of the organs does not indicate with unerring certainty its full relative strength and activity. It is well to take into consideration natural language and the influence of external circumstances, when the above general principle comes to be applied as a rule in the investigation of talents and character. In this we speak only of size, as to its effect upon organs in the same head, just as the size of the different fingers of the *same* hand indicates the relative power of them. This, indeed, becomes a mere question of quantity, as more or less.

The *fourth* fundamental doctrine is founded upon the correctness of the third; and is a question of fact, viz. that by careful *observation* and *inspection*, the relative size of the several organs may be discovered, from the external form of the scull or of the living head.

The application of this last principle has led to most of the discoveries in the science. And it indeed requires the exercise of sound judgment, under certain limitations. It is the only method by which the *functions* of the several cerebral organs can be discovered. We can-

not discover the function of any organ by dissection, especially of the delicate organs of the brain. The eye was never ascertained to be the organ of vision by dissection. Neither does our *consciousness* enable us to designate peculiar material instruments as active, in particular processes of thought or moods of feeling. These processes may be, and indeed are, frequently accompanied by simultaneous sensations of heat or pain in particular regions, and we may be conscious of these sensations; but this is not consciousness of the use of particular organs. Hence Phrenologists look for evidence in reference to the functions of the different organs of the brain, in the only way the nature of the case allows. The application of this principle will be particularly considered in a subsequent part of this work, in connexion with a practical application of the science.

A faculty is considered as established, when the following points are proved.

1. Does the faculty exist in one kind of animals and not in another?

2. When the faculty is manifested in different degrees in different sexes.

3. When the faculty in question is decidedly strong or weak, in proportion to other faculties of the same individual.

4. When it does not manifest itself, at every period of life, in coincidence with any other faculty or combination of faculties.

5. When it is noticed to act or rest singly.

6. When it is inherited from parents.

7. When it may be separately deranged.

CHAPTER V.

BRIEF ANATOMICAL VIEW OF THE HUMAN BRAIN.

ALTHOUGH the anatomy of the brain does not furnish any direct proofs of its function, yet an acquaintance with it is calculated to prepare the mind for the reception of proofs derived from other sources, and also to demonstrate the superior manner in which those, who believe in the doctrine of Phrenology, have dissected the brain.

The brain may be considered as a portion of the nervous system. The nervous system is usually spoken of under three parts — the *brain*, *spinal marrow*, and the *nerves*, all of which have their own individual origins, and are mutual in communication.

The *brain* is that large and delicately organized mass, found in the cavity of the scull.

The three following figures will give different views of a brain.

FIGURE I.

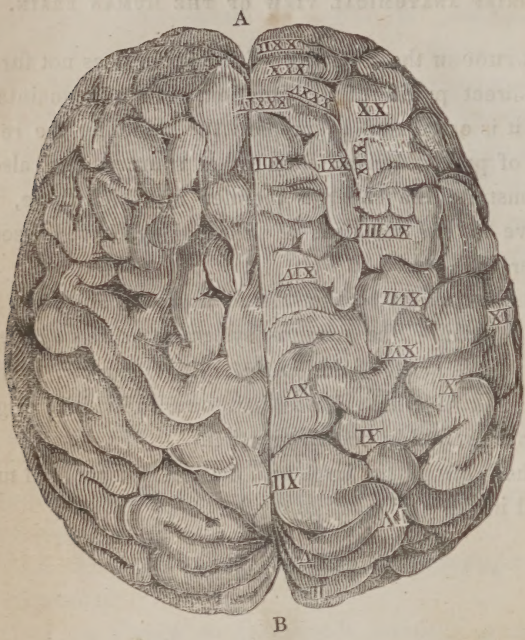
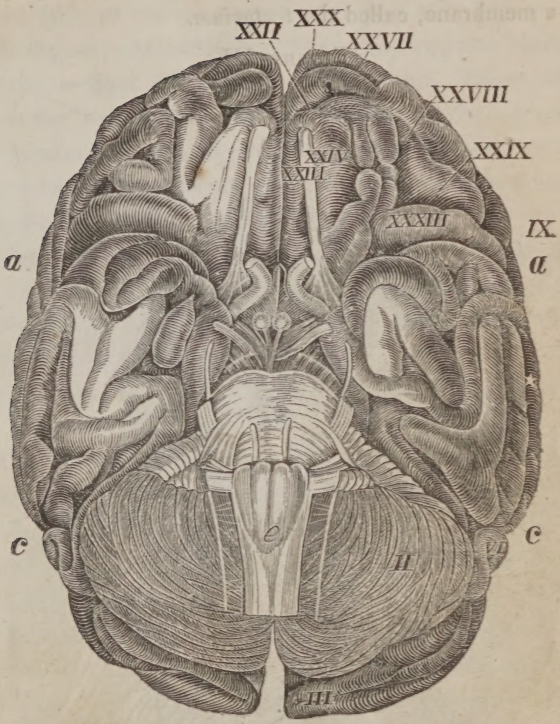


Fig. I. represents the upper surface of the Brain. The front is at B. The line A B is the division between the two hemispheres. The waving lines are the convolutions, between which are furrows descending more than half an inch. The Roman letters indicate the location of the organs, as numbered by Spurzheim, and in this work.

The first division of the brain is into hemispheres or halves, the separation between which is easily seen. Each hemisphere contains all the organs. Hence the organs are all double, as are those of the external senses. Between these hemispheres is a deep fissure, into which dips a membrane called a *falx*.

FIGURE II.

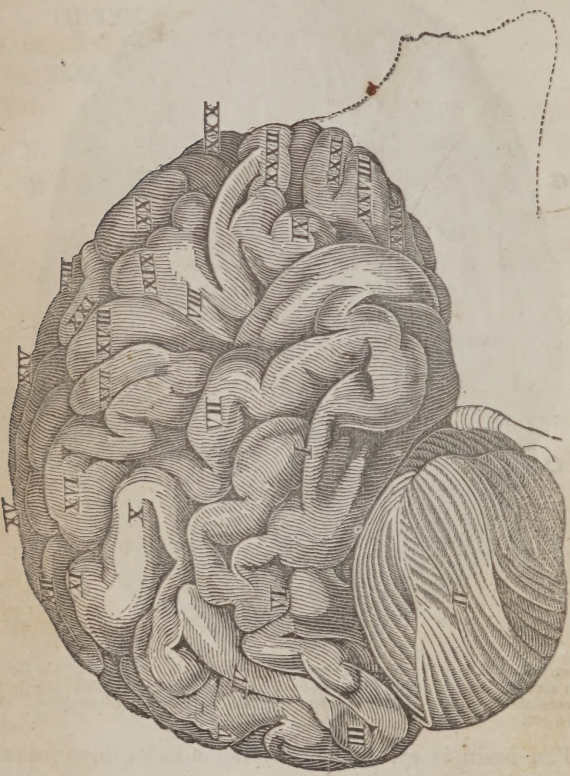


THE BASIS OF THE HUMAN BRAIN. The parts before *a a* are called the frontal, or anterior lobes; the parts behind *c c* the posterior lobes, and the parts between them the middle lobes. *e* represents the *medulla oblongata* — *II* the *cerebellum*.

The brain is spoken of, in relation to its three principal portions, under the name of *lobes*. These lobes are *anterior*, *middle*, and *posterior*. This is an imaginary division, made for convenience in speaking of the brain. The anterior lobe occupies the forehead; the middle lies above, and a little before the ears; and the posterior occupies the back part of the scull.

The cerebellum, or little brain, is at the posterior region, and separated from the cerebrum, or brain proper, by a membrane, called the *tentorium.*

FIGURE III.



This presents a view of the lateral surface of the brain, *cerebellum* and *medulla oblongata*, in their natural situations.

There are three membraneous coverings to the brain; the *dura mater*, the *pia mater*, and the *arachnoid membrane.* The dura mater is a substantial, firm, hard mem-

brane, adhering to the inner table of the scull. The pia mater is a soft and delicate covering, adhering so closely to the folds or convolutions, that it is doubted by some physiologists, whether it should be considered as a distinct membrane from the surface of the brain. Those, who doubt the existence of this membrane, say it is merely the minute cerebral arteries, and those of the corresponding veins, forming at the surface of the brain a minute vascular net work.*

The arachnoid, or spider web membrane, is interposed between the other two, and is the secretory organ of the serum, which moistens the internal surface of the dura mater. It is a shut sack, whose internal surface is in contact with itself, while its external surface adheres to the *pia mater* and *dura mater*.

The brain is composed of a cineritious and medullary substance, as is every other nervous apparatus; and both are doubtless necessary to the perfect formation of the instrument, which performs a particular function. The cineritious substance of the brain is principally confined to the surface, and is of a pulpy, gelatinous character. It is usually of a gray or ashy color, but not always; so that pulpiness, and not color, is its distinguishing character. This substance is easily seen also in the ganglions, and in the nervous masses of the head and spine of vertebral animals. It has, distributed through it, an immense number of blood vessels, so that it appears almost as an entire mass of them; but there is besides these a distinct nervous matter interspersed between them. The white, or medullary substance is demonstrated to be fibrous or

* Dunglison's Physiology.

striated. Its fibrosity cannot be seen with equal distinctness in all brains. It should be a fresh brain of a subject, who had been healthy and somewhere near the middle age, in order to show its fibres to the best advantage.

The fibrous nature of the medullary substance was more fully demonstrated by Dr. Spurzheim than by any preceding anatomist. His mode of dissection enabled him to discover several particulars not before known, viz.

1. That the fibres of the medullary substance begin at the apex or medulla oblongata, and extend to near the surface, diverging in every direction.

2. That, as they proceeded to the surface, fibres were added.

3. That there are two great sets of fibres for each half of the brain.

4. That these are folded into convolutions or organs.

5. That the gray, or cineritious matter, is that out of which the medullary matter proceeds; and that the gray matter intervenes among the medullary matter, where the fibres commence.

The fibres are easily discovered by the scalpel; but the convolutions are so exceedingly delicate, that they will not always bear to be separated by the finger, as you would separate the parts of an orange; but by jetting water, with a syringe, upon the brain, or by using a common blow pipe, the parts will separate. The convolutions upon the surface are the mere peripheral expansions of the internal nervous bundles, to which they bear proportion, as the expansion of the optic nerve is in proportion to the nerve itself.

The *cerebellum* is an apparatus in connextion with, but independent of, the rest of the nervous system, as to its existence and functions. It is composed of the same nervous matter of the brain, presenting cineritious and medullary substances. It is connected with the medulla oblongata in that portion called the *corpora restiformia.*

Circulation in the Brain.

The brain requires much more blood to support it than any other equal part of the system — say eight or ten times as much. And the blood, which goes to the brain, is supposed to be more earated than that, which is distributed to the other parts. It is blood, which has just passed from the lungs, highly charged with oxygen and caloric, and is light red and frothy. Its force is checked both by its specific gravity and the angular curvature, which the artery makes in its course; — were it not for this, the cerebral arteries would be likely to break.

The brain requires to be constantly stimulated with properly oxygenated blood. If this be altogether withdrawn, the brain ceases to act, and sensibility and consciousness become extinct. When fixed air is inhaled, the blood passing through the lungs does not become renovated with oxygen, and the mental functions become impaired. If blood be too highly oxygenated, the brain is too much stimulated, and inflammation is liable to ensue. Hence the phenomena of thought and feeling not only depend on certain organs, but those organs require their appropriate stimulus.*

---

* Combe's principles of Physiology, p. 214.

CHAPTER VI.

SCULL.

The scull is a strong, but yielding, covering to the brain, intended to protect it from injury. In infants it is in a partially formed state; and in after life the processes of absorption and deposition are so constant, that it furnishes no obstacle to the growth and change of form in the brain. Indeed, where any organ of the brain is very active for a long time, there is so much heat in the region of it, and the absorbent vessels become so active, that the scull becomes very thin against the organ, and a protuberance becomes apparent. Hence the scull enlarges to suit the growth of the brain, either by growth at the sutures of the scull, or by the formation of protuberances. The scull is composed of an outer and inner table, and between these is a diploë. There are also several processes. These serve to fasten the muscles of the scalp to the scull. The mastoid process is directly back of the ear; the zygomatic, just before the ear, and the spinous process, or occipital spine, is at the top of the spine, at the transverse ridge of the occipital bone. The scull is nearly parallel in its two tables, and the scalp is so loose, that the shape of the brain may be determined by the shape of the head, with reasonable certainty. There are cuts of several sculls in a subsequent part of this work, illustrative of them, both physiologically and anatomically.

CHAPTER. VII.

THE DOCTRINE OF PROPORTION.

The brain being the instrument of thought and feeling, these, when manifested, are to be practically treated by the same laws, as if they were mere functions of the brain; and the brain being only a part and portion of the whole human frame, we must not estimate its powers of manifestation, independently of certain conditions of the whole system.

1. Then we must regard *proportion*, as a great indication of both strength and the tendency to well-regulated activity.

We have already observed, that the brain requires a large portion of pure oxygenated blood, and that without this its powers are inert. It will be readily perceived, that, if the brain be too large for a perfect proportion to the body, one of two things must occur; either that the brain will not receive its wonted stimulus, or that it will deprive the rest of the system of a portion of what belongs to it, and enfeeble it; — either of which conditions would indicate deranged proportion and consequent weakness. Men of very large brains and feeble bodies may be enabled, under strong excitement, to perform great things occasionally; but this will be followed by subsequent lassitude or disease.

Again, if the blood predominate strongly in the system, and be of a highly stimulating character, and the brain be small, then the brain is too highly stimulated

for the coolness of judgment and reflection, and the individual will be characterized by impetuosity and giddy excitement. Hence the best *condition* is that of *perfect proportion* of the brain to the whole system.

Size, independent of the consideration of *proportion*, and as embracing the whole human system, cannot be a criterion of either power or sustained activity. If we could find a large man with the same fine proportion — same compactness of frame — a proportionate internal viscera, and a proportionate brain and nervous system, then indeed *size* becomes an element, which we imperceptibly regard in this as throughout all nature.

Richerand remarks, that set against a "colossus a little man of diminutive stature, granting nevertheless to this last full and vigorous health — you may guess that he is stirring, always in action, and always changing place; one would say he is laboring to recover in time, what he has lost in space. The probable reason of this difference in the vital activity, following the difference of stature, arises from the relative bulk of the primary organs of life. The heart, the viscera of digestion, &c. are of nearly the same bulk in all men; in all, the great cavities are nearly of the same extent, and it is principally in the length of the lower limbs, that the difference of stature will be found to be. It is easily conceivable that the viscera, supplying the same quantity of nutritious juices to a smaller bulk, that the heart giving the same impulse to blood which is to traverse a shorter course, all the functions will be executed with greater rapidity and energy." This is certainly true in degree, and is a very important consideration in relation to the functions of the brain and judgments of character. It is stated that the

whole body, and I might add the mind, will receive increase of vigor from the amputation of a limb. After the loss of a part of the body, a manifest change will be likely to take place, increasing in the sanguineous temperament.

Since writing the above, I observed the following remarks in the Edinburgh Phrenological Journal. They are made for a different purpose there, but are strikingly similar to my own. "The human body is composed of a variety of systems of organs, each having particular functions to perform, and health is the result of the favorable action of the whole, in harmonious combination. Every organ is disposed, other circumstances being equal, to act with a degree of energy, in proportion to its size; and as disease is the consequence, either of under-action or over-action of the organs, their proportion to each other in size is a point of fundamental importance in regard to health. If the lungs be too small, indicated by a compressed chest, short collar-bones, with shoulders projecting forward, and giving roundness to the back, the blood will be imperfectly oxygenized, there will be a corresponding deficiency of vital energy, and a liability to pulmonary diseases."

CHAPTER VIII.

DIVISION OF THE FACULTIES.

I SHALL adopt the division of the Faculties made by Mr. Combe, and the numbering of the organs of Dr. Spurzheim. Mr. Combe makes two orders.

ORDER I. — THE AFFECTIVE FACULTIES.
" II. — THE INTELLECTUAL FACULTIES.

The Feelings, or Affective Faculties, are divided into genera: —

1. The Propensities.
2. The Sentiments.

The Sentiments are again divided into the higher and the lower Sentiments.

ORDER II.

The Intellectual Faculties are divided into four genera: —

1. External Senses and voluntary motion.
2. Perceptive Faculties, which make man acquainted with the external objects, and their physical qualities.
3. The power which perceives the *relations* of external objects.
4. The Reflective Faculties, which discover the *inherent relations* between objects, as cause and effect, — the differences in kind, power, agency, and fitness.

ORDER I. — Affective Faculties.

The Affective Faculties have their origin from within and cannot be taught, but to be understood must be felt. They are partly common to both man and animals, and partly peculiar to man.

Genus I.

This genus comprises those feelings, which are common to man and to animals. Of these, there are nine considered as established, and two are considered as still requiring farther proof. These are Vitativeness, or *desire to live*, and Alimentiveness.

Vitativeness.

Innateness. — Phrenologists have been induced to believe, "that the feeling of a desire to live" is an innate and peculiar feeling, and not dependent upon any other feeling. This they have concluded from the general analysis of the whole human character. But with that caution and regard for truth, which has distinguished the founders of this science, they have not ventured to consider the organ established. The feeling, if it exists, will seldom be manifested, unless when in danger of death; it, therefore, seems to be necessary to notice it in this view. The fear of death must, in a great degree, result from a mere love of life, as the pain of death, or fear of future retribution, is insufficient to account for the dread with which it is frequently contemplated. Caution is only active when excited by danger to some feeling. The feeling does not exist in brute animals. The love of life is much more active in some than in

others, and does not bear the same proportion in all. With most people, it is the strongest desire of their nature; they cannot endure the contemplation of death. Others seem regardless of death. It does not appear active in early childhood. Our religion recognises the love of life as one of our strongest feelings; and our criminal codes consider the punishment of death as the strongest terror to deter men from crime. These remarks are thrown out to attract attention to the subject.

The *location* of this organ is conjectural.

Dr. Andrew Combe has furnished one fact of coincidence between an unusual development of an organ in the base of the brain, and this feeling. The convolution was at the base of the middle lobe of the brain.

If this be the organ, it will seldom be discovered during life, and will not often be the subject of Phrenological judgment, except in an examination of the brain, and in comparing sculls.

Its activity should be regulated like other feelings, and it should be treated as a primitive instinct. Thus treated, a well regulated intellect would be enabled to control it so as to aid the consolations of philosophy and religion, in our approach to the "King of terrors." I think those who magnify the natural dread of death do very wrong. It is better that it should be regarded as a mere incident, like falling asleep. Let Heaven be with us, and in us already begun, and what we now see dimly through the obscure of these earthly organs, we may *hope* to see in the most transcendent brightness.

ALIMENTIVENESS.

Innateness. — The first inquiry to be made, in reference to Alimentiveness, as well as all other organs, is this, — Does such a distinct feeling exist, or is it a manifestation of several feelings combined ?

The nerves of the stomach and palate give the sensations of hunger and thirst. But those are merely disagreeable or painful sensations. They alone would not, unaided, lead us to desire food any more than a pain of the head would lead us to desire a medical prescription. A knowledge, that food would cure the one and a prescription the other, might lead the intellect to the conclusion, that it would be beneficial to make the application. But this would be very uncertain, and presupposes that every one will be able to choose what is best for himself. Fools and infants could not have this power, yet they desire food. The truth is, an *All-wise Creator has not left a regularly returning want for the sustenance of life to the uncertain suggestions of the individual's intellect to determine.* There is an instinctive desire of food active in the infant anterior to experience or instruction. The same instinct also guides the brute in the selection of food. When well regulated, it is very little active except during meals; and then it exhausts itself, so as to become quiet like any other instinct. This is usually simultaneous with relief from hunger, but it sometimes begins earlier and continues much longer.

Facts. — I noticed the organ distinctly developed in an infant child of a Mr. ——. The head was large and the child precocious, — scull unquestionably very thin, so that the organ was obvious to every one. I will no-

tice but one other case, which has come under my own observation. I saw a female, Miss B ——, who is at the Retreat for the Insane at Hartford, Connecticut, and who is constantly talking about food, running over in her mind, and speaking audibly of every variety of dish, she can think of, and the modes of cookery. This is the same at all times, — not more so when hungry than at other times. Neither is she very dainty about her food, nor does she crave more than others. It is simply the engrossing subject of her thoughts, from morning until night. And on her head the organ is large, with moderately developed surrounding organs, so that there is no mistaking it.

*Location.** — The organ is supposed to be located at the base of the brain, against that part of the scull, just above and before the ear. In the maniac just mentioned, that part of the scull was remarkably prominent. She is in the department of the incurables, and her head may be examined at any time.

I have for some time regarded the organ as established; and from the different modes in which I have seen it manifested, I am disposed to regard it as the propensity, which, when active, tends to excite thoughts of food, and a desire for it, independent of *sensations* of hunger or thirst. It is usually most active, when the sensations of hunger and thirst produce an uneasiness. Hence we feel the desire most at those regular periods, when we gratify it simultaneously with the gratification of our appetite.

---

* The cuts and engravings, illustrative of the location and relative size and form of the organs, will be found in the practical application of the science, in a subsequent part of the work.

A knowledge of the analysis of this feeling gives us a direct clue to the best mode of cure for the habitually intemperate. Intemperance usually results from, or is accompanied with, disease in the organ. In such case the organ has acquired a morbid action, which keeps the mind in contemplation of thoughts upon favorite stimulants, with their accompaniments. In order to cure the predominant and diseased activity of the organ, we must adopt not only those remedies, which will restore general health to the system; but also excite into predominating action the higher sentiments. The change is a *moral* one. Further remarks on this may be suggested in another place.

I. — Destructiveness.

Innateness. — Is there such a primitive disposition or propensity in man, or beast, as to excite thoughts and incline to acts of destruction, without regard to object or manner? Phrenologists maintain the doctrine that there is; and they rely for proof on the customary tests. It is found to characterize some animals and not others. The hare never destroys. Carnivorous animals all delight in destruction, as the lion, tiger, &c. It manifests itself very early. Put an article in the hand of a child, and it will either put it to the mouth to gratify alimentiveness, or strike it upon the floor to *destroy it.* There is the greatest variety among individuals in this trait of character. When regarded in its full extent of operation, these differences will appear quite remarkable. If active in harmony with the higher sentiments, it leads us to a desire to destroy error, vice, evil customs, &c; and we notice a great dif-

ference in the actions and desires of individuals in these respects. Some too manifest the propensity in the grosser forms, by slander, foul language, pinching, scratching, biting, cutting, breaking, stabbing, strangling, demolishing, burning, drowning, poisoning, and murdering. Is not this the sustaining spirit of riots, mobs, wars, and revolutions? I have seen repeated instances of its deranged manifestations. The average measure of heads from destructiveness to destructiveness is about $5\frac{3}{4}$ inches. I saw a dead man, who had been deranged, and had concealed himself in the woods in the winter, and there was found frozen. His head measured at destructiveness $6\frac{7}{8}$ inches. The basilar region was all large. The organ was large in Teller, who was hung at Hartford, for killing the keeper of the States Prison at Weathersfield, Connecticut. I have seen his scull, and the organ was larger than it appeared externally, as the scull was very thin against the organ.

The *facts*, by which this organ has been indirectly proved, are exceedingly numerous. A great number are recorded by Drs. Gall and Spurzheim, and the writers in the Edinburgh Phrenological Journal. Scarcely a day passes without witnessing some new facts. The portraits of Bishop, Williams, and M. G. Gottfried also show the organ large.

When the organ is large, and with average surrounding organs, it may be ascertained by carefully running the hand from the ear upward. The head will be very thick through from side to side, when all the side organs are large, and destructiveness among the rest.

Discovery.—The organ was discovered by Dr. Gall. He was first led to notice the difference between the

heads of carnivorous and graminivorous tribes, the former having more brain just back of the ear than the latter. He could, by inspection of the scull, as well as teeth, tell to which genera an animal belonged. He was presented with the scull of a parricide, and of a highwayman, who had murdered as well as robbed. Between these he noticed a striking similarity just above the ear. He then noticed a similarity in the crania of some others in his collection. The thought occurred — can there be a propensity to kill? He shuddered at the thought. But this did not drive him from his search after truth, relying upon this great principle, that it is always safe to search for truth, and that all truth is consistent with itself. The feeling, as now analyzed, will be recognised as an indispensable part of our nature. It was at first seen only in its abuse. Let it be remembered, once for all, that good and bad are terms applicable, not to faculties or organs, but to actions and feelings arising from them.

Uses of the organ. — Sudden death is a law of our Creator. One animal destroys another, and one becomes the food of another. Dr. Franklin was led to give up his scruples about eating animal food, from the fact, that one fish lived upon the destruction of another. No one will deny, that brutes are destined to sudden death, and that they are instinctively inclined to destroy; and man would be a victim to this instinct, and unable to maintain his supremacy, unless he too had the same principle. With destructiveness manifesting itself in the eye, and in the natural language, man becomes terrible to every ferocious animal. I have seen the lion's keeper in his cage, but the keeper's eye gave forth its destructive

glare, and the lion quailed before it. Had the lion seen the predominance of fear, he would have seized him instantly.

Abuse. — Whenever this instinct or propensity predominates over the balancing and directing influences of the higher sentiments, it will be likely to manifest abuses. All unnecessary destruction, all cursing and swearing, all sudden gusts of passion, and violent speech, all wanton attacks upon character, and slander, are abuses of this organ. History abounds in records of these abuses, both by nations and individuals. And such abuses will be likely to continue, until the congenial influence of the higher sentiments shall prevail universally. And this must be accomplished by the application of Christian truth, under the direction of a sound philosophy of man. Hence Christianity and enlightened philosophy become identical in aim and coöperative in means.

II.—Amativeness.

Innateness. — That there is a peculiar instinct of our nature, independent of mere sexual appetite, which prompts to kindness, mutual attentions, and delicate recognitions between the sexes, &c., of which the specific tendencies are to the matrimonial union, is a doctrine claimed to be established by indisputable facts. The poets have personified and deified this instinct under the name of Cupid; and have represented him as blind, and with a bow and arrow, shooting without direction or aim. I will not say how far this conception arose from the fact, that there is said to be a peculiar, undefined expression, which sometimes darts from the eye, and strikes the eye of the person to whom it chances

to be directed. This peculiarity is also always noticeable, viz. that these darts are felt only, when they come from the eye of one of the opposite sex. And another fact noticeable is, that they take effect only when simultaneous in their passage.

Has this instinct a peculiar and distinct organ, and where is it situated?

The portion of the cerebral mass, claimed by Phrenologists to be appropriated to this instinct, is most unpoetically called the cerebellum. The facts, on which this discovery is founded, are quite numerous, and may be multiplied to any extent by observation. The cerebellum is situated between and below the mastoid process on each side, and the projecting point in the middle of the transverse ridge of the occiptal bone.

The cerebellum is small in infancy, and is not more than a twentieth part of the whole brain. But in after life it is frequently a sixth or seventh part. At somewhere about the age when the voice changes, its size increases rapidly, and dull heavy pains are felt in that region. At this period, the eye begins to acquire a peculiarly interesting glance. The reason assigned for this is, that the nerve of the eye is traceable along the base of the brain, very near to this organ. The Phrenologist may look at the eye, as well as at the occipital region, when he would judge of the activity of this organ. The size and thickness of the neck, when considered in relation to symmetry, is also an indication of the size and activity of the organ. The higher sentiments delight in a simultaneous activity with this feeling. Hence the object loved is not only conceived with the intensity produced by this impulse, but is viewed through

the lens of excited reverence, benevolence, hope, faith, and ideality.

The feeling is usually stronger in the male, than female; hence it is the province of man to woo, and woman to be wooed and won. Although this feeling seems to prompt to the first great relation, which lies at the foundation of society, and is sanctioned not only by revealed but natural law; it alone is not a sufficient guarantee for fidelity, unless rendered constant by the more steady influence of attachment, — a principle deeply rooted in the female character.

III. — Philoprogenitiveness.

A devout and reflecting mind cannot but be deeply impressed with the wisdom of our Creator, in contemplating the admirable manner, in which he has provided man and beast, with those unerring instincts necessary to his existence, and at the same time, as sources of the most exquisite enjoyment. We have already noticed the sexual instinct, on which the continuance and multiplication of animal life depends. But the young being, first ushered into existence, needs the kindest and most unwearied care of the parents; for years, in our own species; and for longer and shorter periods in the brute races. An instinct for this purpose is deeply seated in the animal nature, and by Phrenologists denominated Philoprogenitiveness, or love of offspring. But parents are not *always able* to bestow this care, hence the feeling is not confined to offspring, but is felt in its more gentle stirring towards the children of others, and youth generally. The feeling differs from every other; — from pride in this, that it is most strongly excited

towards the child, which has occasioned the most sorrow, mortification, or solicitude; from benevolence, because the feeling is most strongly manifested oftentimes in those, who are least actuated by benevolence. It is independent of intellectual endowment, or reflection, or sense of duty, although these, and many other influences, may sometimes be superadded.

Has this instinct an appropriate organ, and where is it situated?

The organ appropriated to this instinct is directly above the cerebellum, and separated from it only by a membrane called the tentorium. On the scull this space appears to be nearly half an inch. It should not be mistaken for a small protuberance called the spinous process — a point to which the scalp fastens. The facts in proof of this location of the organ are very numerous, and may be multiplied daily by observation. 1st. If we view the heads of the two sexes, we shall generally find the part of the brain and scull in question much larger in the female than in the male, and females are admitted to be most fond of offspring. 2d. If we look abroad in society, we shall find that all those, whether male or female, who are most devotedly attached to offspring, have the largest organ appropriated to this attachment.

In some the feeling is feeble, and in them the organ is small. Those mothers, who deem children a burden, have the organ small. Among twenty-nine women, who had committed infanticide, Drs. Gall and Spurzheim, on examination, found but four, in whom this organ was not decidedly small. There are others, again, who can appreciate the sentiment of Byron, that —

> "The childless cherubs well might envy me
> The pleasures of a parent!"

3d. If we examine the heads or sculls of the several varieties or nations of the human species, proofs will multiply on our hands. In negroes, the organ is generally large, and that race are proverbially fond of offspring. The races of North American Indians are remarkable for this feeling and organ. So are the Hindoos. In the more cultivated Europeans, and the educated classes, this instinct is less predominating, and at the same time better assisted by intellect, and the higher sentiments.

4th. Dr. Gall very carefully examined the sculls of birds and of animals, from the shrew-mouse upwards, and uniformly found the part of the scull appropriated to this organ most developed in the female. And he says he could distinguish the sex of an adult animal of any species, by comparing a brain of each sex. The organ is so entirely established, that it is one of the best of the whole for an inquirer into the truth of the science, to confine his attention to, in the commencement of his observations and researches.

It is worthy of notice that this organ borders upon the organ of combativeness, and the slightest injury to this feeling is sufficient to excite combativeness. The female, when protecting her offspring, has more courage than at any other time, and is usually more irritable. "Touch my child and you touch me" is not only a sentiment, but a phrenological truth.

The organ is usually large and active; and motives addressed to this feeling are likely to be appreciated by all classes. But strong as it is, it must not be forgotten, that it is also blind, and needs the guidance of the higher sentiments and intellect. Without such guidance it may ruin the object of its solicitude. The spirit of the present

age requires that parents, and especially mothers, should be enlightened, that they may judiciously bestow that care and attention upon their offspring, which will assist to make them, not only sources of true comfort to the parent, but enlightened and virtuous members of the community. The science of Anthropology, embracing as it does all that belongs to the human character, should be peculiarly the study of mothers. Then will physical, moral, and intellectual education be commenced as it should be, and the foundation laid for that great improvement in our race, which must precede the universal adoption of the Christian religion. The organ was large in Burns and Sheridan.

IV. — Adhesiveness.

Innateness and analysis of the feeling. — Man is universally admitted to be a social being. We associate in society, form parties in politics, and unite in social worship. We form friendships, and attach ourselves to parents, and kindred, and also to favorite animals, to favorite instruments, and to favorite pursuits. These attachments are not transient, but lasting. Phrenologists claim this to arise from a peculiar and distinct feeling. And in so doing, they agree with common language and common opinion. Friendship and habit have been the standing and hacknied themes of the moralist and poet, from the earliest period of our literature. The feeling is stronger in some than in others. It is manifested more strongly in children than in the aged. It gives constancy to the marriage relation. It is usually stronger in the female than in the male. In some brute animals it is strong; others are solitary and dissocial.

Existence and location of the organ. — The organ of this feeling is located a little upward and outward of that of philoprogenitiveness. When large, it will appear as a circular protuberance, a little clipped on the border of philoprogenitiveness. Dr. Gall was the fortunate discoverer of the organ; and facts are easily collected by which any one may be satisfied of its existence and location. It was some time before I readily recognised it on examination of heads, but of late have found no difficulty. In children the feeling is quite strong, and the organ is frequently decidedly marked. On female heads, also, it often appears large. In hundreds of instances I have found a large organ of adhesiveness on the the heads of persons, remarkable for their social feelings and personal attachments. I noticed it so large on the head of a gentleman, as to be seen easily notwithstanding a thick head of hair. He had recently lost his wife; and he said he would sooner part with all his estate than with a picture of her. Such is the strength of his attachments. I will not multiply facts, because every one can find them for himself, by the examination of the heads of children remarkable for attachment to parents and others.

Its uses. — The exercise of this feeling seems more necessary to personal enjoyment than any other; it also forms the basis of the social compact, and of every social virtue. To some, protracted solitary imprisonment would be more terrible than death; and solitude has sometimes been the cause of derangement. Those, who are most solitary, fasten their attachments upon something, — they have the object of their devotion, — a book or a domestic animal. "Woman's whole life," says Irving, "is a history of the affections. The heart is her world;

it is there her ambition seeks for hidden treasures. She embarks her whole soul in the traffic of affection; and if shipwrecked, her case is hopeless, for it is a bankruptcy of the heart."

Its abuses are manifested in our attachments to unworthy objects, and, from its force, being led to adhere to an unworthy cause.

Natural language. — The natural language of this feeling is manifested by throwing the head back without elevating it. If the object of attachment be at the side, the head will be involuntarily inclined towards it, and friends will be locked arm in arm. Other demonstrations are so common, as to make any further description unnecessary. Joining of hands has always been an emblem of friendship.

V. — Inhabitiveness.

Its innateness and analysis. — Most people, I believe, experience a pain, when transplanted from their native soil, from the home of their childhood, which has something in it far more deep and lasting, than what is occasioned by merely severing parental and other attachments. A sense of desolation comes over the soul, and sickens the heart. We are indeed so constituted as to feel a peculiar attachment to our fireside, our room, our house, our neighbourhood, our town, our state, and our country. This is the first ingredient of patriotism. It is indeed more felt when wounded than when gratified. As a peculiar instinct, it is more easily recognised in the malady of home-sickness, than in its most perfect enjoyment. The innateness of the feeling is proved from the difference of individuals in regard to it. Some are indifferent

to place; — others are extremely attached to home, and never feel easy without one. I saw an insane person at the Retreat for the Insane in Hartford, who has wandered the world over, and is uneasy in any place; he was almost destitute of the feeling, and the organ was much depressed. I know a boy, who has the organ large, and he cannot be prevailed upon to leave his home. Like philoprogenitiveness, it is larger in the female than in the male. The organ is situated directly above philoprogenitiveness, and is one of the least of the domestic feelings.

Uses. — It seems to be necessary that we should have such a distinct feeling, in order that every clime should be inhabited, and that the inhabitants should be attached to their own place.

> "The shuddering tenant of the frigid zone
> Boldly proclaims that happiest spot his own,
> Extols the treasures of his stormy seas,
> And his long nights of revelry and ease.
> The naked negro, panting at the line,
> Boasts of his golden sands and palmy wine,
> Basks in the glare, or stems the tepid wave,
> And thanks his gods for all the good they gave.
> Such is the patriot's boast where'er we roam,
> The first, best country ever is at home."
>
> CAMPBELL.

Like the other domestic feelings, this has an indirect power as a propelling principle. In aid of acquisitiveness, it leads to the accumulation of a fortune abroad, that it may be enjoyed in some favored spot called home. How many enterprising young men go to foreign countries to acquire wealth, in secret hope to return in a few years to the home of their fathers, and there, with a companion, enjoy the group of domestic affections.

I have not been able to find facts, which lead me fully to adopt the doctrine of Mr. Combe, in attributing to this feeling the power of concentrativeness, or of maintaining in simultaneous and combined activity two or more faculties, so that they may be directed towards one object.* Doubtless some instinct in the brute creation, analogous to this propensity, inclines animals to live in some particular location. Some seek the water from the first moment of their existence. Others prefer elevated and mountainous regions — some the plain, and some the marsh. Some birds build their nests and seek rest on the tops, and others in the holes of trees.

VI. — Combativeness.

Analysis. — I think it will not be doubted but that opposition, contention, sparring, and fighting have characterized the human species in every period of their history. The records of the past abound in the accounts of the activity of this feeling, as manifested by individuals, by parties, and by tribes and nations. Animals indicate the same spirit in their contentions for mastery.

---

* I am acquainted with a gentleman in Maine, in whom the organ is remarkably large. He is himself an ardent phrenologist, and has attended to his own consciousness and natural language for several years, in reference to this organ. As an extemporaneous speaker, he has uncommon readiness, and can summon all his energies instantly, and when engaged is addicted to dwelling very long on every topic — even to repetition. His manner is to run his hand through his hair in the region of the organ when engaged in thought. I would remark that his perceptive organs in general, and his comparison are large. This, together with an active temperament, would doubtless do much to account for his readiness and fulness of illustration.

The feeling rises, whenever any pain or injury is occasioned to any other feeling, and, like a faithful sentinel, is ready to fight all their battles. Standing alone, when no other feeling is injured, it seeks its gratification in mastery. In repelling attack, it manifests a lower degree of activity, sanctionad both by positive and natural law. It is as truly active and distinctive in its exhibitions, in the form of argument and in shedding of ink, as it is in the pugilist.

Innateness. — Does this arise from any combination of feelings, or is it a peculiar and distinctive propensity? It almost always acts in combination. But the ingredients of opposition, or contention, or attack, or desire of mastery, are always sufficiently obvious.

Its manifestations. — In combination with firmness, it gives the most determined perseverance in overcoming obstacles. With large destructiveness, it gives hardiness to character. With mirthfulness added, there would be a love of rough sports, and an inclination to sarcasm. In its constant quiet power, it enables one to *oppose* and resist the common obstacles, which thwart our path. With large reverence, it feels opposition to new doctrines, in philosophy, or religion, or forms of government. It has an exciting power beyond every other feeling.* Its nature being both to make and resist opposition, and also obtain mastery, it excites to the utmost, both mental

* Mr. Scott remarks in an interesting article on this organ, that "all the propensities are not merely propensities, but *powers;* and this of combativeness is eminently so. It gives not only the desire to contend, but the power of contending; and without this, as an active principle, no other motive can induce the same species of exertion."

and physical energy. We can discover its natural language, in the hard, thumping sound of the voice, as if every word contained a blow. Its general language is boldness, and, with large self-esteem and small reverence, it produces audacity. In animals, the feeling appears plainly in its natural language, by lifting the ear and swelling the neck.

Its organ, and where located. — The organ assigned to this feeling is located directly back and upward from the ear, bordering on the tentorium, philoprogenitiveness, adhesiveness, cautiousness, secretiveness, and destructiveness. It is more usually indicated large by a swell, running back to philoprogenitiveness and adhesiveness just above the tentorium. There are many striking facts to prove it. Its large size may also be indicated by the great breadth of head between the ears, as in the cast of the scull of Wormser, found in the shops. Some animals never fight, as the hare; others are delighted with opportunities for battle. Among animals of the same species, there is a wonderful difference; as in the case of the spaniel and the bull-dog. And there is a corresponding difference in their organization.

Uses. — When in due proportion, it rescues the character from cowardice, and the two great influence of cautiousness. When small, the individual always feels great difficulty in overcoming opposition, resisting attacks, and encountering the prejudices of the world.

The effect of this organ, in cases of partial insanity, is quite peculiar. As this feeling enlists readily in the cause of all the feelings, so, if disease begins in any of the organs, combativeness soon becomes affected. — Hence combativeness is almost always affected soon after

derangement commences. Hence too, to say one is mad and crazy frequently means the same thing.

VII. — Secretiveness.

Analysis and innateness of the instinct. — We all must have noticed in individuals a disposition to *conceal* their thoughts, feelings, expressions of countenance, and the condition of their affairs, and to be assuming an appearance, expression, manner, and mode of address, calculated to deceive you. And at the same time, if you converse with them, you will begin to feel as if you were under an inquisition, and they will be constantly leading your mind to points, about which propriety requires you to be reserved. Such people will consider almost every thing confidential, and yet never actually confide any thing, which it would do the least harm for all the world to know. Such people talk, not to *express truly* their thoughts and feelings, but to *conceal* them. They feel as if every thing must be *managed*, that there must be contrivance and stratagem, and every thing with them has a regular built plot. Indirect lying, false coloring, misrepresenting, withholding part and communicating part, — equivocal and non-committal language, apparent fairness and frankness, — these and a thousand more are but parts of the *machinery* used. These characteristics of mind are sometimes called cunning, prudence, discretion, &c. And phrenologists believe that they arise principally from a too active state of one of the selfish feelings of our nature, by them denominated secretiveness. In a due and suitable degree of activity, this propensity becomes highly useful, as it enables us to hold on to our thoughts, feelings, and plans, until the intellect

and the other feelings have given sanction to the communication of them.

Burns seems to have had the feeling active in that due degree, which should regulate the intercourse of friendship, and of the world at large.

"Ay free aff han' your story tell,
When wi' a bosom crony;
But still keep something to yoursel'
Ye scarcely tell to ony.
Conceal yoursel' as weel 's ye can
Frae critical dissection;
But keek thro' ev'ry other man
Wi' sharpen'd slee inspection."

Some may not see why such a distinct elementary principle should exist. A short view of the defensive and selfish nature of man, from a comparison of the feelings, will show its precise position. Combativeness repels injury and seeks mastery, but not destruction. Destructiveness likes no long argument, but excites to a determination to destroy and demolish. Cautiousness leads us to provide direct means of defence, and do all carefully. *Secretiveness* excites to arts of stratagem, concealment, and deception. If we were to meet an enemy, whom we were desirous to prevent from injuring us, we might be conscious of the simultaneous activity and influence of all these feelings, and different individuals would adopt different courses, just according to their peculiar organization.

The organ, and where located. — The organ is large, and is situated immediately above destructiveness in the middle lateral portion of the brain. When secretiveness and destructiveness are both large, the lower middle

portion of the head is characterized by a general fulness. I have noticed the organ when *large* and when *small*, and compared it with the characteristics of the feeling, as manifested in both of these states, and am entirely satisfied of its existence and correct location. I have seldom seen it large, where there were not other selfish organs large, such as love of approbation, or self-esteem, or acquisitiveness, or constructiveness, or destructiveness. It is indeed near the centre of the side organs, and when the head in general is characterized by great breadth, this organ will be likely to be large. The individual will be profoundly selfish, and characterized for tact, *savoir faire*, prudence, cunning, slyness, and stratagem. There are casts in the shops illustrative of its existence, location, and size. When the organ is small and feeble, the person will express every feeling on his countenance, will communicate all his thoughts and plans, and be always betraying himself. You can see to the bottom, as in a clear, limpid stream. Bonaparte had the organ *very large*, and when he thought himself closely observed, he had the power of discharging from his countenance all expression, save that of a vague and indefinite smile, and presenting to the spectator the fixed eyes and rigid features of a marble bust. It is usually large and active in successful actors. I examined the head of H***, the comedian, who gives the primitive yankee character so well, and found the organ of secretiveness large. I am acquainted with a lady whose countenance, when in a situation to be noticed, always carries the same indefinable, unmeaning smile, and the appearance of candor personified. A love affair disclosed her true disposition. In her the organ is large, almost to a deformity. The

design of this work will not permit me to dwell upon the uses and abuses of this feeling with its combinations.

The instinct is manifested in brutes. — Foxes, dogs, and cats sometimes manifest the feeling. The fox, in approaching the poultry, will not go in a way to be observed. The dog conceals his bone, the cat secretly steals upon her prey. Birds build their nests so as not to be discovered.

VIII. — Acquisitiveness.

Innateness and analysis. — An attentive observer of the actions of mankind must have noticed conduct, which could not have sprung from any motive, but a peculiar and primitive, instinctive desire of acquiring, hoarding, or of self-appropriation, without limitation of manner or of object. Cases of petty theft are numerous, committed by those, who must have done it purely from the abuse of a primitive instinct. The instinct to acquire belongs to dogs, squirrels, bees, &c., and not to many other animals. Although active in *infancy*, there are after periods before early manhood, in which the feeling is little excited, and loses much of its force. But in later life it becomes strong, and often acquires an ascendency over the whole character in old age. Numerous individual cases might be named, which would tend to demonstrate the existence of the propensity. Petty theft is not so unusual as we should imagine. I know of a beautiful young lady, well educated, always accustomed to the first society, and never in a condition of want, and who, nevertheless, was guilty of little thefts from her youth. These were winked at, and no exposure made, until she took another lady's pocket book, as it lay upon

the counter of a store, where both had happened for the purpose of trade. Goods are frequently stolen from the stores of merchants; — clerks frequently take small sums from their master's drawers for spending money. Some men too, devote their whole lives to the acquisition of gain, declaring that the pleasure consists more in the acquisition, than any one could enjoy in spending it. Many remarkable cases of theft have been collected by Drs. Gall and Spurzheim, from a king to the lowest subject, ranging through all classes, not even escaping ministers of religion.

The organ, and its location. — The organ, as located by Spurzheim, may be looked for above secretiveness, and between cautiousness and ideality. The general position will always be found to be essentially the same; but in low heads, in which the propensities all decidedly predominate, the organ is likely to be pushed out most in its lower edge, and in high heads, in which the higher sentiments predominate, the upper portion will appear most distinct; and as the organ is large, this may appear to affect its position. Hence the slight difference between Dr. Spurzheim and Mr. Combe. The facts collected to establish the organ are as numerous as those which prove the propensity. They are both positive and negative. Those, who have the organ large, are never found to be indifferent to acquisition — it may be money — it may be property in general, it may may be antiquities, or curiosities, or scientific collections, according to the influence of external circumstances, habit, employment, or the predominance of other organs. I cannot believe that the gathering of knowledge directly gratifies the feeling, although it may do so indirectly. Theft is

always to be considered as an *abuse* of that organ, although it is not necessarily large in all thieves. Thieving *may* arise from a deficiency of conscientiousness and other higher sentiments.

Remarks.—Law writers and philosophers have puzzled themselves much to determine whence the first notions of property were derived. Blackstone, in his Commentaries, has an ingenious, elaborate chapter on this subject. But an analysis of the instinctive feeling of self-appropriation explains it readily. The desire of property is an original instinct of our nature, and the laws on this subject should be made so as not to do violence, either to this feeling, or to any of the higher principles. The necessity for this primitive instinct may be inferred from the fact, that *it is connected with self-preservation.* We have constant wants to be satisfied by the uses of what may be brought within the comprehensive idea of property. An instinct seems necessary to excite the intellect to a suitable degree of activity in reference to property, and thereby balance the force of other strong impulses.

With those who can reason, acquisitiveness is not the only organ which may excite the mind to the accumulation of wealth. The possession of property furnishes an indirect gratification to many of the feelings. It is to the trappings and glitter of wealth, that the blind reverence of the most numerous classes is turned, while in other countries it looks to the throne and titled nobility. Talents and learning are objects of respect, especially in connexion with wealth and rank. So are birth and office, but it was the sentiment (perhaps somewhat prejudiced sentiment) of Fisher Ames, that our citizens have

not been accustomed to look on rank, or titles, or birth, or office, as capable of the least rivalship with wealth, mere wealth, in pretensions to respect. "Of course," says he, "the single passion which engrosses us, the only avenue to consideration and importance, in our society, is the accumulation of property. Our inclinations cling to gold, and are bedded in it as deeply, as that precious ore in the mines."

IX. — Constructiveness.

Innateness and analysis. — That there is in men a propensity to construct, without limitation of manner or object, and in several brute animals a *limited* and peculiar instinct, to construct after a determinate and specified manner, it is presumed no one will doubt. Children early manifest this feeling in those little rude structures, which occupy their playful moments. And we cannot look abroad for a moment without noticing the wonderfully multiplied trophies of man's skill, from the simplest household implement up to the splendid ship of war, or the temple erected to the Most High. If we look abroad among the brute creation, we shall be struck with the constructive power of the bird, the bee, and the beaver.

The *power* being admitted, our evidence, that it springs from a peculiar instinct bestowed for that purpose, rests principally on the following considerations. The power belongs to one kind of animals, and not to another. The different degrees, in which different individuals possess the desire and the power of constructing, is not commensurate with any other faculty of the same individual. It is capable of becoming diseased, — and descends, as a peculiar family trait, from one generation to another. In childhood the feeling is more active than in after life.

The organ, and its location. — The precise location of the feeling in ordinary heads would not be obvious to learners in the practice of the science. It is *seldom* so full as to present a protuberance. And where the talent seems to have been *hereditary*, the development does not always fully indicate its predominating influence on the character. I have found it safe therefore to say, that the talent exists where the organ is large, but not to deny it, where it externally appears no more than average. We must not forget that the province of the organ is only to manifest the desire, and excite the intellect to its gratification. Hence the *power of constructing* results from the *size* of the *organ* in question, the *adaptation* and *extent of intellectual power*, and the force of habit or experience. We should distinguish between construction and invention. Invention requires superior intellect, as well as an active organ of constructiveness. Merely to construct, what others have invented, requires less of intellectual power in general, and more of the force of habit or *skill*.

I know a young artist who possesses the organ to a remarkable degree, and in him its effect is to excite and direct his intellect to execute very perfectly, what he undertakes in his profession. I also know a young man, in whom the talent seems to have been hereditary. He has wonderful inventive genius, but does not execute what he has contrived. In him the organ is not very large, but the intellectual faculties are remarkably fine, and he has a fine, sanguine, and nervous temperament.

There is no point of character so intimately connected with high civilization, as that of constructive power. The New-Hollanders have not sufficient mechanical skill

to build themselves houses, or prepare clothing, or furnish themselves with the simplest tools; and they are represented by geographers, as among the most miserable of the human race. Compare them with the Europeans, and the difference is astonishing; but not more so, than the difference in the form of their heads, in those regions where the organs, on which the manifestation of the power depends, are situated.

Genus II. — Sentiments.

The sentiments are of two kinds, and are distinguished as the lower and higher sentiments. The lower sentiments are cautiousness, approbativeness, and self-esteem. They are termed sentiments, because they join to the mere propensity an emotion.

X. — Cautiousness.

Innateness and analysis. — Most people know more or less of that feeling, which we term anxiety, although it is much stronger in some than in others. The feeling is not limited to any one object, and is not occupied solely upon either what has been done, what we are doing, or what we expect of the future. It is excited by every circumstance, which has the power to affect our condition, or the condition of any of the objects of our feelings. We are indeed surrounded by dangers, difficulties, and temptations, arising from the darkness of our intellectual faculties, the cross and irregular impulses of opposing passions, and the multiplied and ever varied influences of external circumstances. The petition in the Lord's Prayer, "Lead us not into temptation, but deliver us from evil," is a natural expression, suggested by the primitive sentiment of cautiousness.

Cautiousness is not the only feeling excited by the dangers of our situation, although, when compared with the others, its influence will be seen to be necessary, and to harmonize beautifully with them. Destructiveness would impulsively excite to annihilate, demolish, and destroy the objects which are dangerous or troublesome. Combativeness would excite us to contend, give battle, and to overcome opposition. Secretiveness suggests thoughts and plans of stratagem and deception. And cautiousness, acting purely under its own impulses, excites us to discovery of the means of safety. It would seem to say, take care, — be watchful and circumspect.

From the extensive sphere of activity, for this feeling, (possessing, as it does, a sort of guardian care over all the impulses of our nature, and watchfulness against all the dangers of our condition,) we should suppose that its organ would be large, — and so indeed it is.

The organ, and its location. — The location of this feeling is in the upper lateral hind part of the head, near the middle of the parietal bone. It is usually larger than any other feeling, stationed as it is in a manner to be affected by the juxtaposition of the domestic feelings, in the occipital region, of the selfish feelings on the side, and the higher and lower sentiments, in the sincipital region. And it seems to modify the character of all the feelings, especially those situated on its borders. It is easily discovered.

Observations made upon the developments of the part of the head assigned as the seat of this organ, in all the various methods by which organs are regarded as proved, concur in establishing this. In children, it is usually larger than in adults. Some adults are much more

cautious than others, and the most cautious have the organ in question correspondingly developed. The heads of females are more developed at the organ of cautiousness than males, and they too are usually more cautious. It is proved by observations upon the insane, upon different nations, upon animals of different species, and also upon different animals of the same species. The evidence, by which it may be proved, can be collected very easily. I have made several thousand observations upon the organ, and found its size to correspond with the character, in this respect.

XI. — Approbativeness.

Analysis. — We may notice, among the individuals of our acquaintance, very great differences in their desires of notice or distinction. Approbativeness indicates a desire to be approved as well as noticed. But this feeling does not necessarily seek approval. Every man, who reasons, or feels correctly, would think it desirable to be approved as well as noticed by others. Success in life depends upon it. All the higher feelings are gratified by it. But the primitive feeling, to which our attention is now called, is that desire of distinction, notice, recognition, or praise, which attends upon public situations and pursuits. When strong, it becomes a love of glory. This feeling seeks various ways of gratification; as by the possession of office, power, wealth, splendid dress, or establishments, or furniture, or by being a public individual in any way. An individual once confessed to me, that he could not bear the thought of dying without being known; and he was constantly doing things, which excited public attention,

and even censure, and seemed gratified by so doing. Does this arise from a primitive sentiment? Phrenologists believe that it does, and consider its organ established.

The organ, where located. — This organ is situated outward, and partly round the organ of self-esteem, and generally either elongates the posterior upper lateral part of the head, or spreads out on each side so as to produce a large table in that region. Phrenologists have made very many observations upon this organ, and have no doubts of its correct location. In the individual above noticed, the organ was large. An experienced phrenologist can generally judge correctly, whether an individual would be desirous of public life, or indifferent to it. The relative size of this organ, and that of acquisitiveness, usually does much in determining, whether an individual will be the mere private citizen, seeking wealth in a still, quiet way, or whether he will be seeking public life.

When this feeling becomes very strong and is not properly checked, it will show itself by gross vanity or egotism. The vain are as egotistical and selfish as the proud. It leads to the desire of distinction so strongly, and tends to excite thought and observation upon the notice taken of one so much, that a belief is superinduced, that all the world have little else to think, or speak of.

I saw in the Retreat for the Insane, at Hartford, Connecticut, an individual named Wilcox, who was deranged in this organ, as also in that of self-esteem. A gentleman, who was with me, entered into conversation with him, upon which the maniac inquired of him if he was ever in Vermont. The gentleman replied in the

affirmative. "Well," said he, "was not every body talking about Elihu Wilcox?" In his head the organs of self-esteem and love of approbation were both very large. I think that love of notice, recognition, distinction, praise, fame, and glory indicate but the different degrees of the strength and activity of the same primitive feeling; and this primitive feeling seeks for gratification in people of all ranks, and becomes as much a want of our nature as food or society.

The speech of Henry V. before the battle of Agincourt, illustrates the sentiment: —

"He that outlives this day, and sees old age,
Will yearly on the vigil feast his neighbours,
And say, to-morrow is St. Crispian;
Then will he strip his sleeve, and show his scars.
Old men forget, yet shall not all forget,
And they 'll remember, with advantages,
What feats they did that day. Then shall our names
Familiar in their mouths as household words,
Harry the king, Bedford and Exeter,
Warwick and Talbot, Salisbury and Gloucester,
Be in their flowing cups freshly remembered.
This story shall the good man teach his son:
And Crispian's day shall ne'er go by,
From this time to the ending of the world,
But we and it shall be remembered.

* * * *

And gentlemen in England, now abed,
Shall think themselves accursed they were not here:
And hold their manhood cheap, while any speak,
That fought with us upon St. Crispian's day."

XII. — Self-Esteem.

Innateness. — It will not be denied, that our self-estimations are frequently accompanied by a certain appear-

ance thrown over the whole natural expression, indicating that we are under the influence of a certain emotion. It receives the appellation of self-satisfaction, self-content, self-esteem, self-respect, pride, haughtiness, self-glory, &c., just as it is active in degree, or manifested in connexion with other feelings. Those manifestations, termed pride, or haughtiness, arise from a too active state of the feeling, or from a want of a properly balanced manifestation of this with all the feelings.

As a desire, the same feeling seeks power and self-importance. A man with large self-esteem will not be likely to doubt his own talents, and will be shy to expose his ignorance or weakness before those, whom he is obliged to consider his superiors. His conceptions of himself will be upon a large scale, and he will seek to give others a tremendous impression of himself. And to do this, those whom he addresses should not possess the same large self-esteem; for if they do, he will be particularly offensive to their self-esteem. Two men, with large self-esteem and equal pretensions, will be natural enemies. Innateness of this feeling is proved from several considerations. 1st. The strength of this, as of the other primitive feelings, differs astonishingly in different individuals. Some seem strangers to the feeling. In such you will find a striking depression at the part of the head where the organ is located. 2d. Observation shows it to be more usually large in males than in females. 3d. It also exists, in a modified form, in some animals, as the horse, the turkey, and the peacock. 4th. It differs in strength in different nations. The English are said to have more self-esteem, and less love of distinction, than the French. In the lower classes the deficiency of the organ is very common.

Location of the organ. — The organ is situated at the largest part upward and backward from the ear, and may be known to be large, when the head rises high and extends far backward in this region. When that region of the head appears deficient, the organ is small.

The natural language of this sentiment is so distinctly noticeable, that every child observes it. The head and body are thrown a little back, and sometimes with one foot forward. If you excite the feeling strongly in one who has it large, while he is sitting, you will probably raise him out of his chair. Those who have it large, will associate with their seniors, and seek society above their rank, although this latter manifestation of it, will be where there is deficient respect for others. Those, in whom self-esteem is too small, are apt to think too little of themselves. Their judgments in relation to this subject will be defective, and indeed, as they take no delight in self-contemplation, they will be found to be very ignorant of their own feelings and character. Such people have generally groped their way through the world ignorant of their powers, and submissive to the self-esteem of others. They never care to be leaders.

Any undue manifestation of this feeling is very offensive to most people, and hence very little is ever said to encourage it. General remarks, calculated to excite it promiscuously, would do great mischief. Hence, whatever we say on this subject, we always apply to the case in hand. The humble, lowly, and depressed may be encouraged, and assured, that they have powers of which they are unconscious. We should endeavour to introduce them to themselves. On the other hand, when addressing those who seem to possess too much of this

feeling, we may cautiously suggest, that they are in danger of over-estimating themselves, and that, if encouraged, their self-esteem will bring them into many difficulties.

Self-esteem, more perhaps than any other feeling, should be a well regulated and *enlightened* principle. The intellect should fix the standard, and the feeling should assist us to maintain it under all circumstances. Self-ignorance is the cause of the odious manifestation of self-esteem. Let it be active, in harmony with all the other sentiments, and it confers great dignity upon character. When in adversity, we need its utmost power, to balance those other feelings which have become morbidly excited. When in prosperity, we should watch over it constantly, or it will lead us into a snare.

XIII. — Benevolence.

Innateness and analysis. — There is, it will be admitted, in the character of many people a disposition to sympathize with, and take an interest in, the condition of any of the human family, and even the sufferings of brute animals. This feeling is not adhesiveness, as this only attaches us to, and interests us in, our friends, or party, or society. Neither is it philoprogenitiveness, for this feeling only extends to children and young animals. Nor is it inhabitiveness, for this only attaches us to our place, our home, our town, or country. It is a broader feeling, going out upon, and embracing the whole human family, and also the suffering brute animal. Excited towards the vicious, it is compassion, towards the suffering, it is sympathy, to all mankind, it is philanthropy. In gifts, it is almsgiving; in needful

attentions to the feelings of others, it is kindness or good-will. Fenelon distinguished between patriotism and philanthropy, when he said, "I am a true Frenchman, and love my country, but I love mankind better than my country."

When this feeling is active, it produces a warmth of manner, and directness of purpose, quite distinguishable from that air of coldness and constraint, connected with those mock acts of kindness which proceed from love of approbation.

This feeling is also characterized by exciting thoughts, and producing actions connected with its gratification, and thus it becomes a strong principle of action. Sometimes it leads us to think somewhat too charitably of the conduct and motives of others, and to attend more to their interests than our own. It gives amiability to disposition, and produces a most delightful feeling, and amiable expression of countenance. This we term *Benevolence.*

The existence of the benevolent principle, arising from a primitive sentiment, has been denied by many philosophers, while others have contended for its existence. But phrenologists have proved the existence of the feeling, and its organ, by thousands of observations. The advocates of the selfish system are principally of two classes. The first are those who are decidedly selfish, and have the organ small. They are in the situation of the blind man in reference to colors. They can never be convinced of their error by appeals to their own consciousness. If, however, they will recollect that the organs of the faculties are distinct, and that these, when differently modified, produce different results, they may be able to conceive, that others are influenced by mo-

tives, which they themselves are unable to appreciate. Perhaps this is too much to expect of such people. Of what use would it be to attempt to convince a Tiberius, a Carracalla, a Caligula, or a Nero, a Danton, or Robespierre, by appeals to their own feelings, that there is in man a benevolent principle?

Another class disbelieve in a benevolent principle, from mistaken views of its nature. Such will admit that they do acts of benevolence, and feel a delight in them. But they say this delight gives a selfish satisfaction. They mistake the motive. When the object of charity is present, he becomes the moving cause, and excites the benevolent principle into action; the delight, which follows, springs from the exercise of the feeling called out, and is only an unthought-of consequence, and not a moving principle. If the act were charitable, but was not produced by the activity of the benevolent impulse, the delight would not be experienced. Some other feeling, such as self-esteem, love of approbation, or adhesiveness, may be gratified, and this will furnish a kind of pleasure. But it is not the delight experienced by those, who enjoy the glowing and lofty impulses of the benevolent emotion.

We have not said, that every one will readily recognise in himself the above principle. One of the proofs of its existence as a separate sentiment rests on the fact, that it appears to be strong in some, and very feeble in others, with the corresponding difference in the form of the head. And to show that this does not happen from difference in education, or external circumstances, we shall find the same difference noticeable among children in the same family, and among the uneducated, influ-

enced by the same external circumstances. National differences are equally striking. Some brute animals have it in a modified form, and others have nothing of it. In cases of insanity, and inebriation, not very unlike insanity, we sometimes see the feeling manifested very distinctly.

A comprehensive view of human nature will enable us to see, that without benevolence, and constituted as we are in all other things, the character would be mutilated, and destitute of balance; selfishness, and cruelty, and deceit would characterize man universally. The great principle of love to mankind, of that charity, which "suffereth long and is kind, envieth not, vaunteth not itself, is not puffed up, doth not behave unseemly, seeketh not her own, is not easily provoked, thinketh no evil, rejoiceth not in iniquity, but rejoiceth in truth," would be entirely wanting. *The organ is situated* at the upper part of the frontal bone, in the coronal aspect, between the forehead and the fontanel.

XIV. — Reverence.

Analysis. — Many people experience a peculiar emotion, when they come into the presence of others, who, from any thing in their appearance or station, make an impression of superiority or greatness, either intellectual or moral, or of extensive learning. Writings, possessing any form of superiority, excite the same feeling. Every thing ancient excites a feeling, commonly termed veneration. Actions, which are great and splendid, excite the same sentiment towards the author of them. We respect many things strongly addressed to the external senses; as a majestic figure, or the paraphernalia and

insignia of office. Rank, ancestry, and wealth excite the feeling. So the laws and institutions of society, powerful in their effect upon our destiny, and efficient for our protection, excite the same feeling. In all this, the essential element is *greatness* or *power*.

The ignorant may be made to believe that there is something great and powerful, in what others would consider as small, insignificant, and ridiculous. Any thing possessing, or believed to possess, the elements of greatness or power, becomes the object which excites this specific feeling.

The degree, in which it is excited, and the name, by which the feeling will be designated, will depend on the object. Men *respect* persons and things, *venerate* age and antiquity, and *adore* Deity. *The direction, in which this feeling will habitually manifest itself, so as to characterize the person, will depend upon the peculiarity of his organization in general, and the influences, which have habitually acted upon it.* Its *excitability* and *intensity* will be found to depend on the same laws, which govern the manifestations of the other feelings. Many of the objects of respect and veneration are conventional, and vary very much in different places and under different circumstances. Those things, which we have always seen treated as objects of respect, and which from youth we have been taught to respect, will habitually excite the feeling; and we cannot cease to respect them, without doing violence to the feeling.

All things are governed by superior *power*, and *obedience* belongs to *inferiors* in power. Hence obedience follows reverence. We may *submit* where we do not reverence, but cannot obey. Where the sentiment of

reverence is weak, the principle of obedience will be so too. Reformers are usually deficient in this sentiment. The stronger, too, a man's consciousness of power is, the fewer persons and things will appear more powerful than himself. Hence, large self-esteem is not favorable to obedience: reverence will be strongest and least enlightened, and obedience the most willing, where self-esteem is very small, reverence and faith are very large, and knowledge and the higher intellect very deficient. Such will believe blindly, and reverence and submit to all that they see and feel to be great.

It will be seen that the common meaning, attached to the word *reverence*, falls very short of that, which is attached to it by phrenologists.

The innateness of the sentiment, and its organ. — The existence of the sentiment under consideration must be universally admitted. But that it is an elementary principle, and connected with, and manifested by, a distinct organ, must be proved by the observation of facts. We notice very great differences in individuals, in relation to the strength of this sentiment. Some are naturally very diffident, or inclined to respect the laws and usages of society, public opinion, the character of the aged, — the ancients, &c. Some also are eminently devout. Others, again, pay little attention to these things.

There are national differences in regard to the feeling in question. In the Negro race, and in the inhabitants of Catholic countries, the organ is large.

Observations upon heads in general will demonstrate that those, who are remarkable for any of the traits of character above described, have the part of the head, designated as the organ of reverence, very large. But it

never will be in the power of a phrenologist to judge, in what *manner* the feeling will manifest itself in a given case, without knowing the influences which have acted on the character. External influences are perhaps more likely to produce peculiarity of character in this than in any other sentiment. In the *management* of these circumstances, so as to bring them properly to bear upon this part of character, and to secure an enlightened and elevated respect for the things of time, and true and devout reverence towards the Almighty, we find a vast field of labor for the parent, teacher, philanthropist, ruler, and divine. It is usually a large organ in those, who are habitually attentive to, and fervent in, prayer. In this sentiment is centred the *greater* part of what is termed *religious feeling*. There are, however, many other feelings, which strongly bear upon and modify the feeling, such as faith, hope, ideality, firmness, and benevolence, — but more especially, faith or marvellousness. The organ of reverence may be large in an infidel, and small in a sincere Christian. An individual may be inclined to venerate and to respect, but may not believe the Christian religion ; and therefore its precepts and institutions will not be to him objects of veneration. Others, again, may believe the Christian religion firmly, and attend to its active duties strictly, and not be remarkable for devotional feeling. Whitefield had a small organ of reverence, as has also an eminent divine at the West, yet we should not doubt their piety. In all the cases, where I have seen eminent devotion to religion, with a moderately developed organ of reverence, I have found a large organ of marvellousness. The feeling of reverence delights in periodical and suitable exercise, as

much as any other feeling. The great object, to which it goes forth in all its energy, is Deity.

Its natural language is bowing, deference, stooping, kneeling, or prostration. It induces to obedience, and its natural language is expressive of submission.

XV. — Firmness.

Innateness. — We all must have noticed a characteristic of mind, designated by the various names of perseverance, firmness, obstinacy, &c. Such a feeling would seem necessary to complete the character; else we should be fickle, changeable, and easily stopped or diverted from our undertakings. But those, who have the feeling strong, unwillingly relinquish a pursuit or opinion. They also unwillingly yield or submit to others. The feeling is more easily described in some of its leading manifestations than analyzed. I would define it to be that sentiment, which, when active, gives force to resolutions, and steadiness and uniformity to the irregular and conflicting impulses of other feelings. It is manifested also in a desire to hold on to whatever we are engaged in, in spite of the unsteady pressure of circumstances. It might not be unaptly compared to the fly-wheel in machinery. Any attack upon our opinions and purposes serves to excite it, and increase its force. In adversity and distress, it will give fortitude and patience. Observations made by phrenologists have established this as a primitive principle. The different degress, in which this feeling is manifested by different people, with the corresponding developments, is a proof of its existence. Observations upon stubborn children, and those of a yielding disposition, will furnish additional proof. It is

usually a stronger feeling in males than in females. There are striking differences in national character on this point.

The organ is situated on what is usually the highest point of the head, directly back of a vertical line drawn from the orifice of the ear.

The regulating feeling should itself be regulated, or there is great danger to be apprehended from it. It is necessary to great enterprises. No man has distinguished himself for the influence he has had over other minds, unless he has possessed to a high degree the characteristic of firmness. Men, who have the feeling small, will be changeable and vacillating in character, entering upon a pursuit, perhaps with great avidity, and following it for a while with commendable zeal, until near accomplishing their purpose, and then fly away to something else. Such men do not obtain, and long retain, the lead in public affairs.

Large firmness, self-esteem, and combativeness, will give great desire for command. Those, who reluctantly yield their plans and opinions to others, will endeavour to make others yield to them.

As a quality of perseverance, it is peculiarly necessary in litigation, and its abuse lays the foundation for much of the contention of the law. Obstinacy in error is to be lamented, but in a good cause it becomes a virtue. The martyrs were distinguished for firmness and conscientiousness. A portrait of John Rogers, the martyr, shows these organs to have been very large in him.

Both Drs. Gall and Spurzheim were remarkable for their firmness of character, and the organ was very large in the heads of both.

Natural language. — When firmness is large, its tendency is to make the head and body perfectly erect, and it gives a peculiar hardness to manner, unless the person have been much in society, and have also large reverence, and love of approbation. In speech, the voice will be emphatic. Such persons find it difficult to enter into the feelings of another quick, or to feel new emotions suddenly. Former emotions are not readily changed for others. It uses the emphatic *I will,* and shuts the mouth closely. It is peremptory.

XVI. — Conscientiousness.

Analysis. — Conscientiousness, like all the sentiments, is blind, and has no power to discriminate between right and wrong; — this is the work of the intellect, excited by the feeling in question. And when we are taught to believe, and do in fact believe, that any thing done is right or wrong, the feeling of conscientiousness is active in view of it. When the feeling is strong, it will call the intellect to view actions critically, in reference to the question of justice; and such, as possess the feeling strongly, will be much roused when an injury is received. When the feeling is small, the individual may inquire whether a thing will be popular, whether it will please his friends, whether it will be honorable, or charitable, but will think nothing about the question, Is it *right?* People, who have but small conscientiousness, may do right from the imperfect moral character of other feelings, but do not because they feel it a conscientious duty so to do.

It will be seen from this, that conscientiousness is liable to abuse, even when strong and active, provided

the intellect be weak or unenlightened. The Hindoo mother may be as conscientious, when she commits her infant to the Ganges, as is the Christian mother, who carefully rears her child, and instructs it in the principles of Christianity.

I intend to give a view of *conscience* in another place. See *definitions*.

Innateness. — Is there such a distinct elementary principle, with its corresponding organ? This question (whether there is an innate sense of right and wrong) has long been a subject of dispute among philosophers, but has been practically admitted in society, because it is often deeply felt. It is not strange that such difference of opinion should exist among writers, who give themselves no trouble to gather facts, but who judge merely from their own feelings. Those, who have the feeling but in a feeble degree, and the morality of whose actions springs from other principles, such as self-esteem, love of approbation, benevolence, or any form of selfishness, would be likely to deny the innateness of the feeling. Hence Hobbes, who flourished about the middle of the seventeenth century, referred our approval of virtuous actions to self-love, on the ground that what improves society improves ourselves, and that the civil laws are the ultimate standard of morality. Mandeville was also a believer in the selfish system. Hume attributed all judgments of actions to a sense of utility. Cudworth, Hutchinson, Reid, Stewart, and Brown admit the faculty in question. Dr. Gall referred the sentiment to benevolence. But Dr. Spurzheim has demonstrated the feeling and its corresponding organ by so many facts, that the organ is no longer considered doubtful. I have made

many observations upon this organ. I have in a few instances seen it exceedingly small, even among the higher classes, and in such cases I have found a deficiency in the sentiment. This was the case of a Mr. G——, who, at the time I saw him, was in the Lunatic Asylum at Hartford. I saw a remarkable depression of that organ in a man of great wealth and high standing. His head was bald, and the depression might be seen by a favorable light at a distance of thirty feet. I have seen it very large in several instances. It is more frequently large in children. Those who have it very large are apt to make conscience of every thing. I saw a case of the morbid activity of it, in connexion with large cautionsness. The individual thought he had committed an unpardonable sin, and that, as a just punishment, he should be eternally miserable. A person may determine whether the principle be a strong one in himself, by the manner in which he can truly answer the following questions: Do I habitually inquire, am I right in relation to my actions? And do I readily discriminate between what is right and what is wrong? Do I discover and notice an act of injustice more readily than an insult?

The master spirit of Bonaparte was darkened, when the question of right and wrong was to be examined, and he could never understand the motives of a man, who had any scruples of conscience.

A judge, who is deficient in this principle, may understand the force of precedent, and of the policy of law, but will never readily discover the justice of a case. A lawyer, who is deficient in conscientiousness, may be shrewd, cunning, persevering, and popular, and it will

be a matter of indifference to him whether he is on the right or wrong side. But he will be an unsafe counsellor, and can seldom anticipate the decisions of a just judge.

XVII. — Hope.

Definition. — Hope is that sentiment which excites the intellectual faculties to contemplate those things, which may be expected to transpire agreeable to our desires. All the feelings have strong desires, but hope is a sentiment added to them, and which leads us to *expect* the gratification of our desires by the contemplation of those chances, which may happen in our favor. This feeling always has the threefold influence of *exciting* the intellect, of *leading it to contemplate objects and chances* which will be *favorable* to our wishes, and of *warping* the judgments by inducing us to contemplate the favorable results only. It never leads the mind to the past, except for an argument in favor of the future. It may lead us only to the immediate future, or it may contemplate our destiny throughout eternity. As it regards the future, it is the direct antagonist of cautiousness. As hope is the attendant of the desires of the other feelings, it will act most strongly with those which are strongest. A man, with predominating acquisitiveness, will find his hopes principally active in relation to expected pecuniary success. A man with strong faith and reverence will hope principally in relation to his future destiny. Hope borders on marvellousness, and is kindred in character. Marvellousness leads us to believe that, of which hope only gives us strong expectations. When hope and cautiousness are both strong, a person

will be variable, sometimes enjoying the most splendid dreams of prosperity, at other times desponding, and dejected, and ready to sink in despair. The tone of hope is most happy and delightful, and its activity is increased by a nervo-sanguine temperament. It is common to speak of sanguine expectations.

The *innateness* of this sentiment is generally admitted. It seems to be appropriate to a rational being, whose intellect can penetrate the future. It does not belong to brutes. It has much to do with religious feeling, and is situated outward of reverence and between conscientiousness and marvellousness. According to Dr. Spurzheim, it also borders on acquisitiveness. My observations incline me to believe that it does not extend to acquisitiveness, but that ideality intervenes. In the location of this organ, my observations agree more nearly with those of Mr. Combe, than of Dr. Spurzheim. When hope is not too strong, it serves to excite the mind to those reasonable expectations of the future, which will be verified by the reality, and also to check too active cautiousness, which might otherwise produce despair, melancholy, and gloom.

When hope is small and firmness large, a person may mistake the one feeling for the other. I have multiplied observations upon this organ to a great extent. Among those who have it large, I have noticed bold speculators and dealers in lottery tickets. Those, who deal in foreign commerce, and who engage in splendid public works, usually have the organ large. In adversity, we need a great deal of it. In prosperity, we should constantly watch its activity. I have usually found small hope and small self-esteem in the same head, and those often com-

bined with large cautiousness and reverence; when this is the case, the character is sadly out of balance. I know a gentleman who has been in great despair, whose organization is this. With large ideality, it would produce the poetic feeling.

The sentiment is beautifully described by Goldsmith.

"Hope, like a glimmering taper's light,
Adorns and cheers the way;
And still, as darker grows the night,
Emits a brighter ray."

The organ was large in the head of Sir Walter Scott.

XVIII. — Marvellousness.

Some time before the writer had ever heard of the doctrines of Phrenology, he had made the remark that "Many are so prone to believe the marvellous, and do believe such strange things upon so slight evidence, that their belief is rather to be considered as a desire, or emotion of the mind, than as a conclusion of the understanding. Hence a person under the influence of this passion may be plied with any marvellous tale upon the slightest evidence, and he will believe it; and he may also be led to the belief of any doctrine. The Rev. John Wesley, though a very great man, was also a person of unbounded credulity. Curiosity is also undoubtedly a passion." I have made the above extracts from my private writings, not as proof of the existence of an organ, but merely to show that, unassisted by phrenology, I had made the discovery of the feeling, and had cited as an instance of it an individual, in whom the organ was extremely large.

I have since traced the *analysis* of this sentiment with some care, and have come to the conclusion that, in its simplest form and habitual activity, it is the feeling which enables us to believe whatever is presented to the mind for belief. We could not believe our own senses, if we were destitute of this sentiment. When duly active, the organ assists us to believe, on reasonable evidence; when too active, it leads to belief on slight proof; when not sufficiently active, it requires undue amount of proof. As it is a sentiment, its higher stages of activity are accompanied by certain lively emotions; when it is suddenly excited, it is surprise. Wonder, astonishment, and consternation are names given to its higher emotions. The emotion of terror seems to be a compound of cautiousness and of marvellousness. It is more peculiarly the character of this, than of any other sentiment, to excite the perceptive organs to the formation of false and deceptive images, when any thing comes suddenly upon us, or when it is feared as dangerous. When travelling in dangerous places, as in woods, where we may be likely to meet with wild beasts, marvellousness acting with cautiousness is very apt to turn an inanimate object into the creature so much dreaded. This feeling is excited much by cautiousness, hope, and other feelings, when active; so that what we strongly fear, or ardently expect and desire, we are more ready to believe.

The difference in individuals in relation to this sentiment is quite remarkable. Some will scarcely believe the evidence of their senses; others again will believe things the most absurd, and on the slightest evidence; and are delighted to invent improbable stories, or to hear and read them. Sir Walter Scott says, in his tales of

witchcraft and demonology, that the belief in them dies away by the age of forty, and that every one before that time must take his share. The organ was very large in Sir Walter Scott, as may be seen on the busts of him sold in the shops. We are all familiar with his powers of invention.

Notwithstanding the danger of being misled by this feeling when too active, it has always characterized great spirits. We need its warming and life-giving influence, to excite us to great and noble deeds. When active, it has a peculiarly vivifying influence upon all the feelings, and imparts wonderful energy to the system. It temporarily increases the pulsation, and invigorates the whole system, especially when connectcd with any great enterprise. Let an army believe they shall be conquerors, and they will become irresistible; let them become disheartened, and believe they shall be defeated, and defeat will be likely to follow.

The organ is large in children, in naturalists, and in those who believe in tales of wonder and supernatural events.

Phrenologists have noticed this sentiment as one active only when excited by something unexpected, strange, or wonderful; and the names given to it indicate these higher manifestations. It will be seen that I have regarded it rather as a constantly active, every-day, necessary feeling, called into action by every new acquisition in knowledge and act of belief.

A constant course of reading fiction, research in science, or of ardent faith in religion, are calculated to increase the size of the organ. Hence its higher activity seems to attend upon all that is great, good, or romantic.

Some recent facts seem to give reason for the conjecture, that, with the organ of this feeling and the perceptive organs, there is a more intimate connexion than with any other, and here is ordinarily more heat and a stronger nervous influence than at any other point. Baldness usually commences in this region. In the case of Jane C. Rider, known as the Springfield somnambulist, (the facts of which case are beyond question authentic,) a small spot, on the left side of the head, near the region assigned to this organ, has, since her earliest recollection, been tender, or painful on pressure, and the sensibility is much increased when she suffers from headache. And during her paroxysms the pain in her head was sometimes obtuse and general, but more often acute and confined to a small spot on the left side of the head near the coronal suture. How far the morbid excitement, accompanying the inflammation in this region, influenced the eyes and the perceptive organs, giving to them that peculiar power by which she could see through many bandages, when her eyes were closed, so as to read; and how far it deceived her as to the place she was in, and the people that surrounded her, it is impossible to say. I have no doubt but those spectral illusions, of which we have so many recorded cases, are uniformly characterized by the morbid activity of the organ of marvellousness, and that the organ, when large and spontaneously active, excites the perceptive organs to conjure up those objects and scenes which gratify it. It is also spontaneously active in connexion with cautiousness, and the other feelings in dreams, by which the perceptive organs call up objects of terror.

XIX. — IDEALITY.

Innateness. — In the conceptions, conversations, writings, and designs of some, we may notice a constant manifestation of a sense of the beautiful, the exquisite, the beau ideal, rendering their descriptions, their reasonings, their enjoyments, and their sufferings far more acute and intense than that of others. Such people are always in a world of greater beauty or deformity, than those who have but little of this feeling. Every thing which passes their minds goes through a refining process. Such people live in a state of most delightful illusion, whenever this ruling feeling can find objects to gratify it. But no pleasure comes gratis. When deformity is present, and when trouble comes, their suffering is the most intense.

Phrenologists have noticed the manifestation of this trait of character, and have found it uniformly connected with a peculiarity of organization, which has enabled them to discover its cerebral organ. It is located below and beside that of marvellousness, and when large gives the head an appearance as if a part had been added to each side.

Distinguished poets and artists uniformly have the organ large. It is large in the head of many who are not poets. In such cases you will see it manifested in their actions or prose writings. It was very large in Shakspeare, Milton, Scott, Byron, &c. It was very large in Edmund Burke. It is uniformly small in the degraded and vicious.

It seems to have a fine moral influence by adding to the force of those sentiments, which contribute to morality. Those who have large conscientiousness and

ideality will see a moral beauty in truth and justice, and deformity in error and injustice. The style of one, who has active ideality with a mind well balanced in other points, will be rich, pure, tasteful, elevated, and full of poetic feeling. He will also see a beauty to which he will never attain, but after which he will constantly struggle; hence with active comparison and ideality a person will rather re-compose than copy.

We may see the goodness of our Creator, not only in constituting us capable of such exquisite delights and desires of perfection, but in adapting the material universe to its gratification; and the best return we can make for the bestowment of these gifts is, so to improve our faculties as to enjoy them in the greatest perfection of which we are capable. Men, who have the organs of ideality, marvellousness, imitation, and benevolence large, are likely to continue to improve until late in life, but are not apt to be so devotedly engaged in and delighted with business.

When small, the conceptions and productions of the mind will be plain, and characterized by homeliness and naked, unadorned simplicity. But when large, it gives a habit of feeling and thinking, suited to an ideal world, rather than a suitable abode for man. Addison, when speaking of the pleasures arising from objects of sight, makes three divisions, — *great*, *uncommon*, and *beautiful*. In his remarks on the beautiful, his notions are strikingly phrenological, when applied to those who, like himself, have a large organ of ideality and a quick sense of the beautiful. "There is nothing that makes its way more directly to the soul than beauty, which immediately diffuses a secret satisfaction and complacency through the imagination,

and gives a finishing to any thing that is great or uncommon. The very first discovery of it strikes the mind with an inward joy, and spreads a cheerfulness and delight through all its faculties. There is not, perhaps, any real beauty or deformity more in one piece of matter than another; because we might have been made so that whatsoever now appears loathsome to us, might have shown itself agreeable; but we find by experience that there are several modifications of matter, which the mind, without any previous consideration, pronounces at the first sight beautiful or deformed."

XX. — Mirthfulness.

Analysis. — Some people make comparisons, which, from playfulness of mind and unexpectedness, produce mirth or laughter. Sometimes a slight, strange, and ludicrous cause is given for a known effect. Some amuse us by their descriptions and narrations. Sometimes particular feelings are sportively manifested, as secretiveness, reverence, imitation, &c. We may notice that different individuals have this power in very different degrees; and those who possess it in a high degree are termed wits. Phrenologists have noticed that those, who have this character, commonly have an unusual fulness at the corners of the forehead, and have given to the organ here located the name of mirthfulness. It is purely an enjoying organ, given us as an antagonist to those organs which excite us to great seriousness. As reverence magnifies and heightens the conceptions of greatness and power, so mirthfulness gives us a quick sense of the little, unimportant, and laughable, inclining us to take the world as a joke. It is a feeling, and only excites the

other faculties into sportive action. Compared with sober exercises of the mind, it excites the mind to playful, sportive, mock efforts, the object of which is amusement, and not serious business.

It must not be confounded with the simple gratification of other feelings, because this sometimes produces laughter. The boy laughs when you give him a piece of cake or money. As the result of all this we may conclude, that mirthfulness is that feeling which excites any or all the intellectual or affective faculties into playful action, where the object is amusement or sport. Its effect is to change the tone of all the faculties, and send out from the brain through the whole system the most agreeable nervous influences. It acts with peculiar force in people of a lively, sanguine, and nervous temperament, and who have large perceptive organs, secretiveness, and imitation. Comic actors usually have this combination strong. It requires a less degree of activity and power in the organ to perceive wit, than to produce it. Hence to be a wit requires a certain combination of large organs, with mirthfulness to take the lead.

Those, who have this combination, are in danger of indulging their feelings at the expense of their more sober exercises of mind, and to consider every thing as matter of joke, and unworthy the bestowment of a serious exertion of thought. Hence wit and judgment are observed to be opposite, and seldom united in the same person; and hence, too, the business concerns of the community are seldom entrusted to the professed wit. As the thoughts are relaxed from any serious aim, so are the muscles of the face.

XXI. — Imitation.

Innateness. — No disposition or tendency of mind is more generally admitted and understood, than that of imitation. The imitation of dress, of manners, of speech, of style, of painting, and of writing, is acknowledged by all; and the character of young persons is formed through its potent agency.

It is possessed in different degrees by different persons, is more active in children, than in adults, is manifested by some brute animals, as the monkey and parrot, and is denied to others. Even idiots sometimes possess a power of imitation beyond any other power. These facts are regarded as proofs of the *innateness* of the primitive instinct.

Organ, and where located. — A course of observations upon individuals who possess the power in large measure, as contrasted with those who are remarkable for a deficiency of this faculty, has resulted in establishing the *location* of the organ on each side of benevolence. The portraits of Shakspeare, and the casts of the head of Sir Walter Scott, show the organ large.

The writer has noticed many individuals who had the organ large. Among this number is recollected J. C. M., who successfully imitates many distinguished orators, — and a young man of Bangor, Maine, who manifests it in every movement, and who has succeeded well on a private stage.

How manifested, &c. — The less obvious activity of this feeling is shown, in what we term mannerism and *tone* in speaking. It is a rare thing to find a public speaker, who has not adopted the model of other public

speakers, whom he frequently hears, or whom he greatly admires. The feeling is exceedingly active during the delivery, and hence it is so rare to see a perfectly simple, natural, and characteristic speaker. I have never seen the power manifested to a degree at all remarkable, unless the person had an active temperament, large, and active perceptive organs, and great activity of mind.

Discovery. — Dr. Gall observed a head, in which this organ was elevated in the form of a segment of a circle, on each side of benevolence. He also noticed it equally large in another individual. Observations have since been multiplied to an extent, which warrant phrenologists in considering it as established.

I examined the head of a gentleman in Bangor, and remarked that the organ of imitation was large. He did not recognise the power in himself readily, but on conversing with him afterwards, he informed me that he had frequently, without much effort, been able to imitate the signature of a certain gentleman so perfectly, that it could not be distinguished by the gentleman himself.

ORDER II. — Intellectual Faculties.

Genus I. — External Senses.

In treating of the external senses, I shall speak of their structure as well as functions, that the last may be better understood. It is by the aid of the functions performed by the external senses, (seeing, hearing, touching, tasting, and smelling,) that the internal faculties of intellect, when active, obtain their knowledge of the external world. Without them, man would only have an internal existence.

Feeling of Touch.

This sense is spread over the whole external surface of the body, and over the intestinal canal. To understand the structure and functions of this sense the more perfectly, it may be well to speak of the skin. The skin is composed of three layers of membrane, viz. the cuticle, the mucous coat, and the thick true skin. The cuticle is the outermost layer, and is that which is raised in blisters. This is a thin membrane, without blood-vessels or nerves, and neither bleeds nor feels pain. It seems to serve as a defence against friction, and checks evaporation from the true skin, and also checks absorption. Directly under this is the mucous coat or net-work, which contains the coloring matter of the skin, on which complexion depends. This too has no blood-vessels or nerves. The third, or inmost layer, is the *true skin*, and is by far the most important, both in structure and functions. It is a firm resistant tissue, and is the seat of sensation and touch. It is said by Dr. A. Combe, (in whose invaluable little work on physiology many of these remarks are to be found,) that the true skin is so abundantly supplied with blood and nervous power, that for practical purposes it may almost be regarded as composed of vessels and nerves alone. The redness of the skin in blushing is itself a proof of great vascularity, especially in that which covers the face. However, in this part there is a peculiar nervous texture entwined round the vessels, which gives the cheeks a susceptibility not possessed by other parts. But a stronger proof of this is, that we cannot direct the point of the finest needle into any spot, without puncturing a vessel, or transfixing a nerve and causing pain.

The nerves, so profusely spread throughout the whole surface, are the instruments through which we receive the sensation of pleasure or pain, of heat and cold, dryness and moisture, and of hardness; and is also one medium through which we perceive form and size, roughness and smoothness, of external objects. The necessity of the sense of touch may be apparent from the consideration, that we might otherwise receive essential injury from some unobserved part, without knowing it.

On account of its being spread all over the surface of our bodies, it has been called the elementary sense, and all the others are only modifications of it, accommodated to make us acquainted with certain qualities of bodies. It also corrects the errors of all the other senses.

Taste.

This sense is near akin to that of touch. It is confined to a particular part of the system, viz. the upper surface of the tongue. It is said, however, that the lips, gums, the lining of the arch of the palate, and the palate itself, may be, in some degree, affected by the impression of certain flavors. The upper surface of the tongue differs from other parts in this respect. The several layers of this skin are softer, thinner, and filled with a greater quantity of nerves and vessels. They are also habitually moistened by the saliva, and by the mucus secreted by the mucous glands, and contained in their substance. It is noticeable, that small prominences are formed by the extremities of nerves surrounding a plexus of small blood-vessels. The function of this sense is to produce sensations of taste alone. But it does not form ideas of these qualities. This belongs to the function of certain cerebral organs.

SMELL.

This is the sense which conveys to the internal organs a sense of the odorous particles of bodies, detached by heat, and dissolved in the atmosphere. We are thus made acquainted with the presence of the bodies from which odors emanate. And certain odors are agreeable, and others are disagreeable, just as they affect pleasantly or otherwise the organs of the brain which take cognizance of them.

The sense of smell is situated within the nostrils; and its organic apparatus is that of a thick mucous membrane always moist. Tears not wanted for the eye, assist in moistening this membrane. In the tissue of this membrane are interspersed the olfactory nerves. Other nerves are also distributed here as in other parts of the system susceptible to the *touch*. The smell is the more delicate, as the organic apparatus is the more capacious. The membrane, which serves as the seat of the olfactory nerve, secretes the mucus of the nose. In those animals, which are remarkable for their power of smell, the nostrils and other cavities lined with the pituitary membrane, are prodigiously large, and the olfactory nerve is proportionably large. The dog and swine are remarkable instances. The power of receiving the impression of smell, comes from the nerves of the *first* pair, as classed by Sir Charles Bell. In man, this sense is not of great power.

HEARING.

This is a very complicated organ. It has four divisions, the outer, middle, and the inner parts, and the auditory nerve. Of the outer part it is unnecessary to

give a description. I would only observe, that its construction is admirably adapted to collect sound. The middle part embraces the tympanum and its membrane, the small bones of the ear, or ossicles, and the Eustachian tube. The tympanum is a cavity situated at the bottom of the external passage, between the external and internal ear, and is covered with a thin, delicate skin. It is of a cylindrical form, with several openings. Some of these openings communicate with the internal ear. There is one which communicates with the Eustachian tube. It contains four little bones, called the *hammer, anvil, round bone,* and *stirrup.*

The *Eustachian tube* leads from the back part of the throat to the cavity of the tympanum, and is lined by a mucous membrane.

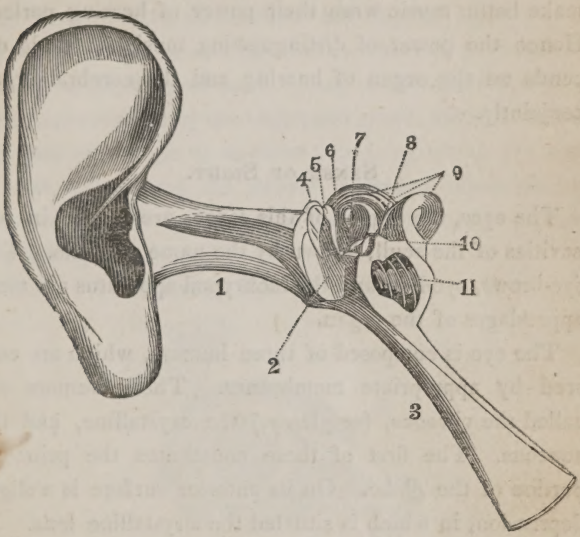
The *internal ear* is composed of three parts, the cochlea, the vestibule, and the semi-circular canals. The cochlea, (so called from its resemblance to the shell of a snail,) is situated near the entrance of the Eustachian tube, and communicates with the cavity of the tympanum and vestibule. The vestibule is in the central portion of the internal ear, and communicates with all the other parts. The three semi-circular canals are situated behind the cochlea and vestibule, and terminate in the latter.

The anditory nerve is a branch of the seventh pair, and passes into the internal auditory tube, and is subdivided into numerous branches, which pass through small openings, and terminate in the form of a pulp in the various parts of the internal ear.

This is a brief description of that curiously constructed apparatus, by which we become acquainted with sounds.

The atmosphere is the more appropriate vehicle for the communication of sound, though liquids and solid bodies answer the same purpose.

FIGURE IV. — THE EAR.



A MAP OF THE EAR. 1 The external auditory tube. 2 The membrane of the tympanum. 3 The Eustachian tube. 4 The hammer. 5 The anvil. 6 The round bone. 7 The stirrup. 8 The oval opening. 9 The semicircular canals. 10 The vestibule. 11 The cochlea.

The essential part of the organ of hearing is the soft pulp of the auditory nerve, floating in the midst of a gelatinous fluid contained in the cavities of the internal ear.

The function of this organ is to produce an impression of sound. But the harmony and melody of sounds is perceived by internal cerebral organs. It is sufficiently apparent that the power of distinguishing melody is not determined by the perfection of the organ of hearing

alone; for many hear very acutely, and are insensible to music. Among birds, the female hears as well as the male, but cannot sing. Some men sing very well, who hear very indifferently. But the same persons would make better music were their power of hearing perfect. Hence the power of distinguishing musical sounds depends on the organ of hearing and the cerebral organ conjointly.

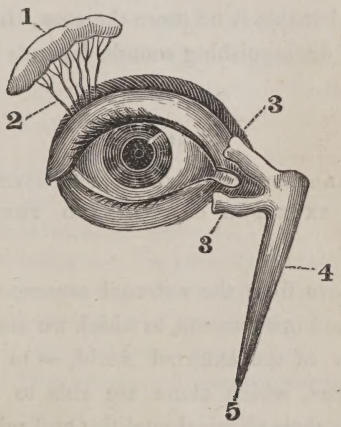
Sense of Sight.

The eyes, the organs of this sense, are placed in two cavities of the scull, known by the name of orbits. The eye-brows, eye-lids, and the lachrymal apparatus are mere appendages of the organ.

The eye is composed of three humors, which are covered by appropriate membranes. These humors are called the vitreous, (or glassy,) the crystalline, and the aqueous. The first of these constitutes the principal portion of the globe. On its anterior surface is a slight depression, in which is situated the crystalline lens. In front of this is the aqueous humor. In this humor is the iris, which expands or contracts, the opening in the centre of which constitutes the pupil. It is the color of the iris that determines the color of the eye. All the light admitted to the eye passes through the pupil. The eye is protected by three coverings. The outer is what is termed the *sclerotic*. This extends over the whole of the eye except the fore part, which is covered with the cornea. The sclerotic coat is commonly called the white of the eye. These taken together, form a most perfect optical instrument, back of which is placed the retina on which the rays strike, after passing through those changes performed by this instrument.

It is the retina, (which is an expansion of the optic nerve,) that is affected and put in motion by the rays of light. This motion is transmitted to the cerebral organ by the *second* pair of nerves, called the optic nerves. These nerves have no function but that of sight. The nerves of sensibility and motion, by which the eye moves and is susceptible of pain, spring from other sources. Tears are secreted by the lachrymal gland, situated within the orbit of the eye at its outer angle, by which the eye is kept moist; and the excess is thence taken up by absorbent vessels in each eye-lid, and thence conveyed into the nose.

FIGURE V. — THE EYE.



1 The lachrymal gland. 2 Its several ducts, to convey the tears to the eye. 3, 3 The puncta. 4, 5 The nasal duct

Its function. — It is the function of the eye to receive, modify, and transmit the impressions of light. Internal faculties form conceptions of the figure, color, distance, and other attributes of objects. It is obvious that the degree of perfection, with which the eye will perform its

functions, will depend on its perfect organization and healthy condition. If the cornea or crystalline lens, or the vitreous humor, or all of them be too convex, the rays of light are too soon brought to a focus, and the sight is imperfect. Long sightedness is a defect arising from opposite causes. But if the eyes be perfect, and the *brain* be defective in those faculties which take notice of the size, form, or color of objects, we shall be unable to distinguish these qualities. Hence our conceptions of objects of sight, and their qualities, will depend upon the perfection of the internal, and the external organs jointly. A careless habit of thinking would lead us to suppose, that the power of distinguishing colors would depend on sight alone; but this is no more the case, than it is that the power of distinguishing sounds depends upon the ear alone.

Genus II.

INTELLECTUAL FACULTIES WHICH PERCEIVE THE EXISTENCE OF EXTERNAL OBJECTS AND THEIR PHYSICAL QUALITIES.

We now pass from the external senses, — those curiously organized instruments, to which we are indebted for all we know of the external world, — to the internal cerebral organs, which alone are able to form ideas of existences, — their physical qualities and relations.

XXII. — Individuality.

Suppose I saw a man riding over a bridge very briskly. The man, horse, bridge, &c., were painted on the retina of the eye, and the optic nerve carried the impression to the brain, and there a class of faculties, each acting by

means of an appropriate organ, contributed to form the whole scene in my mind.

In the first place, there were several objects presented to the mind, as the bridge, horse, rider, &c. These objects were noticed by the faculty of *individuality*, whose function it is to notice existences and things, without regard to any of their qualities or relations. It is indeed the function of this faculty to notice every thing which can be contemplated, though it have only an existence in the mind, as justice, virtue, prudence, &c. And the stronger the faculty, the more definite and precise will be the conception. Some have the power so strong, in connexion with other faculties, that they, by aid of marvellousness, personify abstractions, and represent them as active, and as speaking and doing. Poetry is full of such figurative expressions. Thus Gray's celebrated hymn to ADVERSITY.

> " *Wisdom* in sable garb arrayed,
> Immersed in rapturous thought profound,
> And *Melancholy*, silent maid,
> With leaden eye, that loves the ground,
> Still on thy solemn steps attend;
> Warm *Charity*, the general friend,
> With *Justice*, to herself severe;
> And *Pity*, dropping soft the sadly pleasing tear."

The organ, and its location. — Those persons who are remarkable for their observation of things, and have an aptitude for acquiring a knowledge of details and of individuals, have usually great breadth between the eye-brows, or a prominence immediately above the top of the nose. When large, the forehead seems to point down between the eye-brows. It was large in Dr. Spurzheim,

Canova the sculptor, and is in Chief Justice Shaw, of Massachusetts. It was large in the late Judge Thatcher, of Massachusetts, also in Lord Mansfield, and George III. of England.

It was small in Voltaire.

St. Paul, in his writings, frequently manifests great activity in this faculty. "I am persuaded," says he, "that neither death nor life; nor angels, nor principalities, nor powers; nor things present, nor things to come; nor height nor depth; nor any other creature, shall be able to separate us from the love of God, which is in Christ Jesus our Lord."

There is often a frontal sinus, the largest portion of which is directly at the location of this organ. In such case, the two tables of the scull are not precisely parallel. But a careful observer will be able to judge of the extent of this. And besides, I have always found it safe to consider the organ large, when the scull is prominent, or presents a large surface at this point. A fulness in this region, indicates the predominance of the perceptive organs in general.

FIGURE VI. — THE FRONTAL SINUS.

The Frontal Sinus is the dark hole above the nose.

I have made many observations upon this organ and its manifestation, and have never failed to find proofs of

its existence. It was discovered and analyzed by Dr. Spurzheim.

The organ, when large, furnishes great facility in acquiring natural science, and detached facts. It is a very useful organ, and assists to give to man a practical turn of mind.

General View of the Perceptive Organs.

To return to the man, riding briskly over the bridge. — When the eye first glanced that way, I only noticed something, without observing whether it was a man, or a horse, and without noticing the *form*, or *size*, or *color;* or the place on the bridge, — or how the man sat on the horse, or whether there were not two men, and two horses, — whether the *movement* was *brisk* or *slow*, or the *sound* they made rumbling across the bridge.

But all these circumstances have since been noticed.

I first more particularly noticed the form of the horse and man. This drew into activity the organ of configuration. Having fixed the form, his size was noticed by the organ of that name. He was leaning forward, and was not well balanced on the horse, — this was noticed by my organ of *weight* and *resistance*. The man is discovered to be a *colored* man, upon a *bay* horse, — this was ascertained by the organ of *color*. His dress was badly arranged, and his horse had but one eye. To perceive these circumstances required the faculties of noticing *orderly* arrangement, and the *number* of parts; the organs of which are *order* and *number*. There was a class of objects in *motion;* it became an *event*, and was noticed by *eventuality*. But whether this *movement* were slow or fast, would never have been noticed, but for the

faculty, whose organ is called *time*. And all this happened at a certain *place*, — the *bridge*, — which is noticed by the organ of *locality*. Had there been any harmony in the sound made in crossing the bridge, it would have been noticed by the organ of *tune*. It will be seen by this view of our mental operations, that *individuality* is the organ, of which all the others are merely the adjuncts, enabling us to notice the *qualities* and *relations* of things. A moment's reflection will convince us that we need all the intellectual powers here manifested. And when we learn the fact, that each of these powers is possessed in very different degree by different individuals, in whom the external senses are equally good, — when we make observations, and find that some people have the power of noticing forms, with great accuracy, while they cannot judge of size or color, — that others have a very quick perception of varieties and tints in color, while they cannot distinguish either form, size, or air, — that others again can remember individual things, but cannot tell *where* they saw them, — and others can always point you to the very place, and will never be lost, — I say, when all these varieties are observable, and that in each the peculiar form of the forehead is such as to enable a careful observer to determine, with tolerable correctness, the relative degree in which these powers are possessed by different individuals, we must think there is some reason, at least, to believe in the existence of the distinct faculties, with their appropriate organs.

XXIII. — Form.

The organ of this faculty is situated at the very base of the brain, below individuality, and between the orbits

of the eyes. If the orbits be near to each other, this organ will be small, but if the orbits be some distance from each other, there is a large space for the organ. Hence in judging of this organ, it is necessary to observe how the sockets of the eyes are situated. Great breadth of head at this point will give a large space for the eyes, and for this organ, so that in general, his conformation indicates the organ large.

The function of this organ seems confined to observation of forms. It is serviceable to any one who would acquire great skill in the arts of design, or as a practical phrenologist.

It is a very strong faculty in some of the lower animals. The honey bee distinguishes bees of its own hive, from those of another. It may be well to remark, that where individuality is large, form is usually large slso, as it lies directly under it. The organ is large in Mr. Brown, a gentleman who cuts full-length profile likenesses, by observation, with great accuracy.

XXIV. — Size.

From the general view we took of the perceptive organs, it will be seen that a faculty is required which shall take cognizance, and judge of the size or magnitude of objects. Two objects may be equal in size, but different in form. One board may be six inches square, and another nine inches long, and four wide. In this case, the boards would be of the same size, but of a different form. We should readily see the difference in form, but could not by the same organ discover the equality in size. Differences in size are more readily discovered, where the form is the same. In size we are not obliged to

attend to more than one line at a time. Hence with this organ we may notice length or distance merely. This organ, however, is not active alone in this judgment, unless the objects, on which it is exercised, are in a position in which the principles of perspective do not apply. The organ was discovered by Dr. Spurzheim. Still European phrenologists speak of it as only probable. I have noticed a few cases of a large organ of size, connected with great power in judging of size. Mr. P. Hewins, a gifted young artist of Hartford, Connecticut, has the organ very large, and he has the power of judging of the size of faces and figures, with the most perfect accuracy. Dr. Spurzheim saw a young man in Paris, who had the organ very large, and who could draw a circle, without the aid of an instrument, and point out the centre with mathematical accuracy.

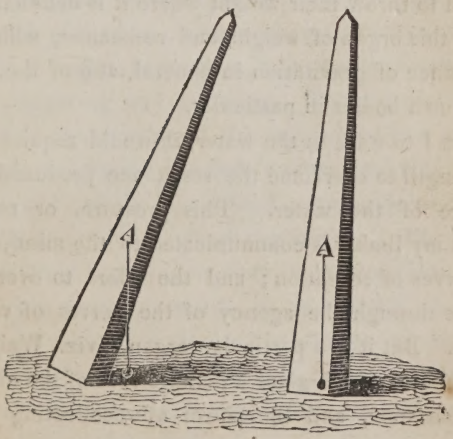
The *organ* is small, and located against the internal corner of the socket of the eyes, on the side of individuality and form. The convolutions of form and size are closely blended, and we have seen it is difficult to distinguish the functions of the organs. The power of judging accurately of size, is necessary to the mechanician, the portrait painter, and the practical phrenologist, or indeed to any one, whose judgment of dimensions is required to be correct.

XXV. — Weight and Resistance.

The law of gravitation is well understood. By it every thing on the surface of the earth is attracted to the earth. The different degrees, in which small objects are attracted to the earth, may be judged by their comparative pressure when held in the hand. Where a cone is com-

posed of any material of uniform specific gravity or weight, we can readily determine whether a line dropped from the centre of gravity in the cone, to the earth, will pass through the centre of any point within its base, or whether it leans in any direction, so as to carry the line to one side. In this judgment, we need to call in aid the organs of form and size, to take the dimensions of the cone; but these alone would not inform us of the condition of its balance. The organ of form might enable us to notice the angle it made with the surrounding earth. But we could not tell the position of the earth on the surface, in reference to the centre of gravitation. The faculty, which takes cognizance of this, is distinct from any other, and is called *weight* and *resistance*. The organ may be excited into action either through the sense of sight or of touch, or by the changing positions of our bodies when in motion.

FIGURE VII.



We have (Fig. VII.) two obelisks. The centre of gravity in each is supposed to be at A. In the first, a plumb line dropped from A to the ground, falls outside of the base; but in the other it falls within the base. We should not need the plumb, to inform us, that one would fall, and that the other would stand; nor even that the one nearest erect, is not perfectly so. The organ of *weight* and *resistance* would soon make this discovery, and we might distinctly *recollect* their inclined position afterwards. And this power of recollection determines it to be something more than the work of the organ of vision. In the human body the centre of gravity is between the hips. The more erect we stand, the nearer a line dropped from the centre of gravity will fall to the centre between the feet. It is always necessary to support this centre of gravity. The quicker our perceptions of deviations in this centre of gravity are, the greater feats of agility we may be able to perform. Circus-riders have these perceptions remarkably quick, and are thus enabled to throw their weight where it is deficient.

It is this organ of weight and resistance, which takes cognizance of gravitation in general, and of the balance of our own bodies in particular.

Were I to walk in the water, it would require muscular strength to overcome the resistance produced by the pressure of the water. This pressure, or resistance against my limbs, is communicated to the mind, through the nerves of sensation; and the effort to overcome it is made through the agency of the nerves of voluntary motion. But it is a particular organ, (viz. Weight and Resistance,) which gives a definite idea of the amount of this resistance, and the power of recollecting it after-

wards. We thus see the function of the organ in question is to take cognizance of *weight* or *gravitation*, and also of *resistance*, and it thence derives its name.

The power exercised by this organ is necessary not only to man, but to the whole animated creation, else they would be victims to the laws of gravitation. In man it has a wide sphere of activity. "It is of use," says Dr. Spurzheim, "whenever weight or resistance are worked upon by the hands, or by means of tools, in carving, turning, polishing, in lifting, in resisting an opponent in boxing; in calculating the resistance of a current, the tide, or pressure of the wind; to direct a ship in certain directions; in using the bow with dexterity; in keeping the hands, arms, and body steady in shooting; in touching the strings or cords of any musical instrument with accuracy: it is therefore necessary to musical performers, be it on the harp, violin, violoncello, piano-forte, organ, &c.; to eminent engineers, as far as the knowledge of momentum, and of statics is concerned; to able printers, particularly of copper and lithographic plates; to clever workmen in mosaic," &c.

But for the organ in question, animal movements would be only staggering and tumbling. The intoxicated are disturbed in the exercise of this organ, and lose a steady gait, — see the ground rise before them, and fancy themselves turned upside down, and grasp objects to save themselves from falling off of the surface. They sometimes feel lifted up, — again they appear sinking down, — and again whirling round. It is thought that even sea-sickness may result from a disturbance of the organ of weight and resistance. I should rather suppose that eventuality, locality, and several other perceptive organs would be equally disturbed.

I have noticed the organ large in several gentlemen, among whom are J. N., Esq., of Portland, and N. G., Esq., of Boston, and a Rev. Mr. F. The two former excel in fencing, and the latter informed me, that he noticed very accurately whether an object stood plumb. I noticed the organ small in a portrait painter, and among his pictures I saw a defect in the air or position of the figures. The bust of Sir Isaac Newton, sold in the shops, shows the organ large.

The organ is situated in the superciliary ridge, directly outward of the organ of size. Owing to the large size of the corrugator muscle, at the internal corner of the eye-brow, it is not safe to judge of the size of the organ, without passing your thumb upward against it.

Dr. Spurzheim locates the organ "externally of that of size, above the orbit *towards* the superciliary ridge." When small, you may press your thumb upwards in the arch at this point, and you will notice the scull less prominent at that point than elsewhere along the arch. When large, it will be quite full there, and will seem to interfere with the position of the eye. I think it does not appear in the superciliary ridge as much as the other organs along the arch.

XXVI. — Color.

The last physical quality of objects, of which we obtain a knowledge through the agency of any of the external senses, is that of color; and the only sense that aids us in this is that of sight. But this does not enable us to see without *light*. Light is the medium by which the sense of sight performs its functions. It is composed of colors, and there can be no light without colors; that is,

without colors all will be black, which is the same thing as being of no color.

Every object, therefore, becomes visible only by the colored rays which it reflects. Bodies are so constituted by the arrangement of their particles, as to absorb some rays, and reflect others. Yet they are not so perfectly uniform in their arrangement, as to reflect only pure rays of one color, and perfectly absorb all others. But those rays, which are reflected in the *greatest abundance*, determine the color.

When all the different colored rays fall equally on a body, the rays reflected will be of the kind, and in the degree that the body is fitted in its particles to reflect, and from these proportions the body will take its color. But the rays of light may pass through bodies, and fall on others in different proportions from what they would, were it not for the bodies interposed. Hence the color of an object will depend on two considerations; 1st, the arrangement of its minute particles, and, 2d, the medium which the rays of light have passed through in reaching the object. An experiment made in a dark room with a prism will show this. Expose a rose to red rays, refracted through a prism, and it will appear more brilliant; but expose the green leaves to the same red rays, and the leaves will not appear green, but of a dingy brown, with a reddish glow. It would not be green, because no green rays have fallen on it. It would not be bright red, as was the rose, because bodies fitted to absorb green rays, will also absorb most of the red rays.

Now the power of discriminating these different rays, and thus of perceiving all the delicate shades of color, does not depend upon the acuteness of the organ of vision

wholly, because many people with very perfect organs for noticing the form, size, and position of objects, cannot discriminate the color of one object from another. They are sensible to light in mass, but are deficient in *discriminating* between the different colored rays. Another reason why this does not depend upon the eye merely, is that the impressions made on the mind, of different colors, can be remembered; and artists can re-produce any color they wish, from recollection. Neither is this power wholly independent of the power of vision, for a blind man can have no idea of colors. It must therefore depend on the perfection of the eye, and of the cerebral organs combined. The next inquiry is, whether some organ already examined can have this function, or whether a distinct organ is appropriated to this faculty. Phrenologists claim the latter to be the case, and have discovered the organ to be situated in the middle of the arch of the eye-brow. They have many facts on this subject, derived from observation, both of the large and small size of the organ. When large, the eye-brow will be much arched, and generally, the outward part will be more elevated than the inner. In feeling for this organ you will not press upward from under the arch, as in weight and resistance, but will run your finger along the superciliary ridge.

This organ is seldom so large as to appear more prominent than the neighbouring organs, and it is more usual to notice it a little depressed. The number of persons who are skilled in colors is comparatively small. The power of the organ is shown in discriminating the minute shades. The lower animals perceive light in general, and seem to be struck with strong colors. Were one

entirely destitute of the organ, perhaps he would not see at all. Hence, where persons have been blind for many years, the organ, from its total inaction, has been known to fall away, and the scull to be depressed.

The organ of color may be defined to be, that whose function is to discriminate the different rays of light, as they are varied in the proportion in which they are reflected by different bodies. Those who possess this power to a high degree, find in its exercise a source of exquisite pleasure. The pleasures derived from this, with the other perceptive organs, led Addison to make the following beautiful remarks. "There is," says he, "a second kind of beauty, that we find in the several products of art and nature, which does not work in the imagination with that warmth and violence, as the beauty that appears in our own proper species, but is apt, however, to raise in us a secret delight, and a kind of fondness for the *places* or *objects* in which we discover it. This consists either in the gaiety or variety of *colors*, in the *symmetry and proportion of parts*, in the arrangement and disposition of bodies, or in a just mixture and concurrence of all together. Among these several kinds of beauty, the eye takes most delight in *colors*. We nowhere meet with a more glorious or pleasing show in nature, than what appears in the heavens, at the rising and setting of the sun, which is wholly made up of those different sorts of light, that show themselves in clouds of a different situation."

Genus III.

INTELLECTUAL FACULTIES WHICH PERCEIVE THE PHYSICAL RELATIONS OF OBJECTS TO EACH OTHER.

XXVII. — Locality.

In the four preceding articles we have attended to the faculties, which notice the external physical qualities of objects, viz. their form, magnitude, weight, and color. We come now to a consideration of certain *relations* existing among objects. The first of these is the *relation* of situation. The mind is not satisfied with noticing qualities merely of objects, without taking into view their relation to other objects by position. But this relation is at once seized upon, and objects become grouped and clustered in the mind, so that no one object can come up to the mind, or be spoken of, but it will instantly suggest the object with which it is related. Objects, when first presented to the mind, are less at our command than those already familiar. Hence the familiar object may be brought to view, and this will suggest the object connected with it by the relation of position.

Now the largest and most familiar ideas we have, are those of the surface of the earth, in all its varieties of aspect. Our eyes are constantly open upon it. It is every where connected; and places are noticed upon it by their form, size, color, &c., giving it all the variety imaginable. This being the great familiar idea, we associate the objects, which cover its surface, with the particular places where we become familiar with seeing them. The organ, which notices this relation, is termed *locality*, because we associate things which are less familiar, with

places which are more so, and are enabled, afterwards, to think first of the place, and then of the object.

It will be seen, from the above view of the subject, that the organ of locality is not confined to the observation of the relation which objects bear to place merely, but it extends to a notice of objects as related to each other by position. And the relation of objects to a place, is but one of its positional relations. But it is so much stronger than the other positional relations, that the organ receives its appellation from this main branch of its manifestation.

The organ in question lays the foundation for the study of geography. When the face of the earth is known, with its *fixed objects*, and *marked features*, in such a manner as to be understood, we may speak of the fixed objects, or the moving objects, on any part of its surface, and may be much assisted in remembering them.

When the organ is large and active, the person will be remarkable for remembering the relations of position. Hence, from its associating power, it is more nearly identified with memory, than with any other organ. The system of mnemonicks, so popular a few years since, was constructed in reference to this associating power.

It is easy to anticipate the sphere of activity of this organ. The persons possessing it in large measure would have the relations of place very strongly fixed in their minds, and would readily remember where objects are. The organ would have a great spontaneous activity, and furnish exquisite delight in its exercise. Hence it would give fondness for scenery, and travelling, and a power of describing scenery. It gives a tendency

to recollect things, as it were, grouped and clustered together.

It would have a leading influence upon the organs in general, and give a direction to all our intellectual habits. Hence the organ is always found large in great travellers, astronomers, navigators, geographers, and painters of scenery. It was large in the heads of Newton, Cook, Columbus, Mungo Park, Galileo, Kepler, and Sir Walter Scott.

Perhaps no organ is so clearly established by observation as this. When large, it stands out from the surrounding organs in a manner not to be mistaken; and it is exposed to the observation constantly. If large, its manifestations are also very obvious; when deficient, too, the defect it produces in the character is easily discovered. There are tests, however, arising from other circumstances. The organ is less in females than in males; so is the power which it gives. It is possessed by some animals, and not by others. Dogs often possess remarkable power of finding places once visited. Wild geese, swallows, storks, martens, &c., migrate at certain periods of the year, and return again to the same spot, after many months absence.

XXVIII. — Order.

In our remarks upon the organ of locality, it was observed, that its function is to recognise the relation of near position, and to associate things connected by position. Objects are not only connected by this relation, but fall into a regular arrangement. To many people, the least confusion is a matter of annoyance; and observation has shown, that attachment to order and power

of arrangement arises from a distinct organ. It applies to things, as they resemble each other in form, size, color, or in innate qualities. The kind of order for which an individual would be most remarkable, would depend on the relative size and activity of the other intellectual organs. If the reflective organs were large and active, he would be fond of what is termed philosophical arrangement and order. If the perceptive organs in general predominate, then he would be governed by the physical qualities; and in this the most attention would be paid to those qualities which are recognised by the most active organs. When there are several large perceptive organs, the organ of order would not be exercised readily in harmony with them all.

This, like the organ of locality, renders great assistance to our powers of recollection. By classification, we reduce the number of distinct objects of memory in a remarkable degree. But remarks upon this branch of the subject, should be made in the article devoted to memory.

The organ is established by thousands of facts. It is found to be larger in females than in males. But in them its more usual effect is, to give a love of order, neatness, and attention to domestic arrangements. Those who are much employed in arranging papers and goods, will be likely to be conscious of great activity of the organ. It sometimes acquires a troublesome degree of activity, and renders people too particular. The organ is situated beside that of color, and is often distinguishable by a protuberance. It may be noticed as large, when the forehead at the lower corners is particularly large.

XXIX. — Number.

We should be utterly confused with the multitude of objects with which we become acquainted, had we no power to number them. Without this power we can take cognizance of them, individually, with their qualities and relations; but we never could, unless we know how many objects are before us, or compare one cluster of objects with another, and ascertain the difference. We might, by aid of the organ of size, determine *quantity** in reference to *magnitude*, but not to *multitude*. By aid of the organ of number, we are enabled to form ideas of a plurality of objects by enumeration, and to describe them by *numbers*. And by the same power applied upon arithmetical principles, we can measure quantities of magnitude as well as multitude. To do this, a certain known quantity is first assumed as a measure, and the magnitude of the whole is determined by the number of times it contains the first assumed measure. By this power we may easily measure the earth we inhabit. From the above view we may define number to be that faculty which takes notice of quantity, considered as multitude, while the organ of size recognises it only as to magnitude. It concerns unity, and the power of repeating it, or plurality. Hence it applies to all the operations of *arithmetic* and *algebra;* but not to the higher branches of mathematics. It assists us to recollect dates and numbers.

This organ has frequently been noticed in children, under circumstances of morbid activity. We have all

* The doctrine of quantity is most lucidly illustrated in the commencement of Emerson's North American Arithmetic, — a work which I should be delighted to see in every school in the country.

heard of calculating boys. Of this number were George Bidder, Zerah Colburn, and the son of an Advocate of Vienna, whose name is not given. All these boys had the organ large; but this circumstance, I apprehend, is not sufficient to account for their wonderful powers. Besides, the power came suddenly, and without exercise and instruction, and continued only while under high nervous excitement.*

The organ was large in Buxton, Newton, Euler, and Hutton. In our own country, I can mention Dr. Bowditch and Mr. R. T. Paine, as cases of it. It is very deficient in certain races of negroes, who can only count five.

The organ is a little outward of the external angular process of the frontal bone, and fills the space at the external part of the socket of the eye. Brute animals have not the power of numbering.

XXX. — Eventuality.

It will be recollected that the organ of individuality takes notice of existences, or things; and that one class of the perceptive organs notices the qualities, and another the *relations* of objects to each other. Of these last, we have already noticed those of relative position or locality, classification or order, and number. Thus far, every thing has been contemplated without regard to its being in a state of motion or rest. But when we look abroad,

* Previous to the wonderful manifestations of Arithmetical power exhibited by young Colburn, he had been afflicted with *chorea*, and was at the time very nervous, and sometimes evidently suffered pain, when called on to exhibit his powers; and when he recovered his health, he lost his extraordinary calculating power.

we see all is life, animation, movement, change, transition, and revolution. These changes are noticed as phenomena, or *events*, and become subjects for observation and recollection.

So, too, if we notice the operations of our own minds, we find all is change, — change in feelings, and in the succession of ideas. Every thing is mutable, throughout the universe. It has even been said that the natural state of matter is that of motion. And past thoughts and feelings can never be contemplated, except as *events*.

We have not yet noticed a faculty whose function it is to observe and remember these motions, phenomena, changes, and events; and it would seem to require a distinct faculty, with its appropriate organ. Phrenologists claim to have discovered the organ of this faculty, and have given to it the name of *eventuality*.

As every thing in the universe is so constantly in a state of change, and this change is noticed by the organ in question, its operation will be very extensive. So far as it records and remembers events, it is an organ of memory. But it extends only to changes; and memory, as applied to it, only indicates a degree of its activity.

The organ is proved by the same kind of evidence as all the preceding, — the evidence of observation. And here the faculty in question has been principally active in this very observing process. Individuality, and the other organs of quality, notice the faculty and its organ, and eventuality recognises the phenomena that take place, and records that, wherever a large organ appears, there is a great power of observation, and vivid recollection of things so observed. It is largely developed in children, and they are fond of motion, change, life, events, and

stories. Every thing to them is new and strange; hence marvellousness is also large in children. The organ of eventuality is situated in the centre of the forehead. It lies directly above individuality, below comparison, and between the organs of locality. An observation of different individuals will show very great differences in the centre region of the forehead.

Those, who have a deficiency of the organ, will have this part of the forehead depressed, and will remember details and events in their minute particulars with great difficulty, while those, who have this part large, will distinctly remember every minute circumstance. Every thing will appear lively and in motion. If they go a journey, they will have a great many events to record. Those, who have the organ large, with comparison large and moderate causality, like to know every thing by experiment. It would see, hear, smell, taste, and touch. It is essential to editors, secretaries, historians, and teachers. Dr. Spurzheim remarks that this faculty and individuality contribute essentially to the unity of *consciousness*, and to the recognition of the entity *myself* in philosophy. Mr. Combe says, "each organ communicates consciousness of the feelings and ideas which it serves to manifest; thus, if an organ of tune be extremely deficient, the individual will not be able to attain a consciousness of melody; a person in whom conscientiousness is extremely deficient, will not be conscious of the sentiment of justice, nor of its obligations; one, in whom veneration is very feeble, will not be conscious of the emotions of piety, nor of the duties arising from it." To reconcile the views of Dr. Spurzheim and Mr. Combe, and find where the truth lies, is not an easy matter. One

thing is clear, that all the operations of the mind, *when passing*, may be observed, and when *passed*, may be remembered as events. The degree of impression, they will make, will depend on the size and activity of the organs concerned. The organ of eventuality may take cognizance of the doings of the organs required, noticing the degrees of activity of each; and where an organ has not been active, eventuality would have nothing to record concerning it. If I had been looking for five minutes at the picture of my deceased friend, and had recalled to my mind his virtues, and many of my feelings had been excited; and a few days afterwards, I should attempt to recall the scene, the organ of eventuality would certainly be active, with all the other perceptive organs, in reviving the scene as before. I should remember my friend's countenance, and my own thought and feelings at the time. Now eventuality was active at the time, or the impressions on it would not have been so strong as to be capable of being recalled. Are we conscious only through the recognitions of eventuality, or is there a consciousness of every faculty active, besides this? To decide this, it would be well to observe, whether those, in whom eventuality is large, are more conscions of what is passing in their own minds than others? And this would depend very much upon the activity of self-esteem, love of approbation, and the other selfish organs, as these have a direct tendency to call attention to every thing concerning *self*.

Eventuality, when active on exciting subjects, would excite the feelings interested. So would strong feelings, when spontaneously active, excite eventuality.

XXXI. — Time.

Those who reflect a moment upon the apparent rapidity, with which *time* passes under certain circumstances, and how very slowly it seems to pass under other circumstances, will be at a loss to account for these differences upon any principles independent of phrenology. When speaking of eventuality, it was remarked that almost every thing manifests life, movement, change, transition, or revolution. These motions, so far as they belong to the planetary system, are governed by certain laws, so as to bring about certain phenomena at stated periods. Hence we have the first division of time, by the revolution of the earth around the sun, and this is termed a year. Another natural division is indicated by the changing of the moon, and another by the diurnal revolution of the earth. From this, we have regular subdivisions, down to seconds.

Availing himself of mechanical powers and the laws of motion, man has constructed certain instruments, whose motions are regularly adjusted to that of the earth, so that, adopting these as standards, we can ascertain how much of a given revolution of the earth has taken place, as compared with the change which has taken place in the instrument. We have already spoken of the organ which notices *change*, &c. But we have seen nothing that enabled us to take note of the degree of rapidity, or variety of movement. This evidently would require a distinct faculty and a distinct organ. We have evidence, that there is such a distinct faculty in the fact, that some excel in their knowledge of the lapse of minutes and hours, and can judge accurately of the

time of day, while others take but little note of time. Some can mark time, march, or dance, with perfect accuracy, while others, no way deficient in other respects, cannot keep time at all. Some are called good timists in music, while others do not distinguish time.

The organ is situated outward of locality, and the proofs of its location now are somewhat numerous. It is but recently, that I saw an individual remarkably deficient in the organ; and he informed me, that it was inconceivable to him, how people could keep time, when marching to music. Mr. Simpson, in an article on this subject, says, that he was struck with the uncommon prominence of the organ of time, in a whole family of young people, and was informed that they all loved dancing, and danced with remarkable accuracy.

That it is the function of the organ in question, to recognise *movement*, is apparent from the fact, that the deaf and dumb can dance, taking their time by the eye.

But for the power of taking cognizance of movement, so as to judge of different stages of it, we should have no sense of progress.

It will be seen, that time is precisely co-extensive with eventuality, the one noticing the motion itself, and the other, its degree of rapidity, and measuring its stages. As every thing by which we predicate time is an act or movement, so the faculty of time notices and *compares* movements. We measure the time of one thing by the time of another. The movement of the earth is the great standard measure.

Measuring points in time are where revolutions are completed; and by the assistance of number, we may enumerate revolutions, and thus describe time.

Thus, on the dial of the watch, the entire revolution of the second hand is equal to one sixtieth part of a revolution of the minute hand; and a revolution of the minute hand, is equal to the movement of the hour hand, one twelfth of a revolution.

In measuring and describing time, numbers are used as they are when applied to the measure and description of objects, in regard to multitude. We regard revolutions numerically, and speak of them by numbers. Certain great events, which are recorded and known by all, become epochs, from which an account of time or an era commences. Thus, by figures, we note 1835 revolutions of the earth round the sun, since the birth of Christ.

Why are our judgments of time frequently so incorrect? The answer suggested, consistent with the doctrines of phrenology, is this: —

1. The organ of time is not always active alike; and when inactive, its judgments would be incorrect, just as judgments formed by the organ of size, when it is but slightly active.

2. Our feelings, when active, have a warping influence on the judgments formed by any of the intellectual faculties. Of these, cautiousness, hope, and marvellousness, would be likely to produce the greatest effect. When an event is much desired, the progress of events in general is narrowly watched, and marvellousness helps to fix a belief that the progress is much slower than it is. I think time is thus prolonged by anxiety, and shortened by inactivity of the organ of time.

Dr. Spurzheim remarks, that the natural language of time is to turn the eyes upward.

XXXII. — Tune.

The ear is the instrument by which sounds are conveyed to the internal organs; but it has no power of noticing and remembering what the notes are, whether *high* or *low*, *loud* or *soft*. The organs of the voice are so constituted, as to make both high and low sounds; and also in each sound it has the power of rendering them loud or soft. Musical instruments are also so constituted as to make all these varieties of sound. Simple sounds may be so arranged in reference to their notes, as to produce *melody*, or in other words, to give an agreeable exercise to the organ of tune; and several voices or instruments may do this simultaneously, each performing their parts so as to give pleasure. But it must be done in such a manner as to exercise the organ *harmoniously*.

The organ of tune, when large, discriminates readily the minutest differences in sounds, and quickly notices both melody and harmony. It also enables those, who have the organ active, to read music readily and to remember it. Observations show that this power is possessed by some, and not by others; and that when the organ is large, it may be easily noticed.

I have noticed the organ to be large, in many instances, where the power is possessed. Several cases are recorded of a morbid power in this organ. A young lady, mentioned by Dr. A. Combe, had suffered almost constantly from headache, and one day the pain was acute, at the external angle of the forehead, precisely in the situation of the organ of tune, which was largely developed. The next day, the same pain recurred, and its location was pointed out by herself. On another occa-

sion she complained of pain in the organ of tune, and said that she had been dreaming a great deal of hearing the finest music. After these dreams had been continued a few nights, the excitement of the organ had reached a height that could not be controlled. The patient felt, not to say a desire only, but a *strong*, *irresistible passion*, or *craving* for music, which it was painful, beyond endurance, to repress. She insisted on getting up, and being allowed to play and sing; and shortly after, she got hold of a guitar, lay down on a sofa, and fairly gave way to the torrent; and with a volume, clearness, and strength of voice, and with great facility of execution, she sang an accompaniment, till her musical faculties became spent and exhausted.

The case of Jane C. Rider furnishes evidence of the morbid state of all the perceptive organs. She had never learnt to sing, or play, but in her paroxysms, her fondness for singing amounted to a passion, — she was never satisfied with listening. She also sung several tunes, herself, with tolerable correctness.

The organ, when large, enlarges the lateral parts of the forehead. But its form is not always the same. Great practice is necessary to be able to observe this organ successfully.

XXXIII. — Language.

We have examined all those faculties which enable us to form conceptions of things, their qualities, and relations. And as man is a social being, and not only communicates, but records and transmits his knowledge, and as this can be but imperfectly done, by exhibiting the objects themselves, with their qualities, relations, and

acts, we stand in need of a power of *representation*, so as that one thing may stand in place of another. Thus, instead of bringing to a man a tree, when we want to inform him of the qualities of such an existence, we can substitute a combination of marks, which are recognised by the organ of form, and, taken together, constitute the word *tree*. We can also make a certain sound, or motion, the representation of an object. By aid of the higher intellectual powers, man has invented many thousands of these signs, and they are adopted, in common use, as *arbitrary language*. In the recognition of these, without regarding them as signs, the perceptive organs, already noticed, are alone active. The organs of form, size, weight, and color, are all active in recognising a single written or printed word; and the organ of tune is active in noticing spoken words. But a distinct faculty is necessary to enable us to conceive of these words, as being the *representatives* of *things* and *acts*, in all their relations and variety, so as to communicate the impressions of one mind to another. Those, who are deaf and dumb, are deprived of the power of using words as sounds, and the blind cannot apprehend mere written words. But the power of *substitution* still remains, and the *mode* of it is made to conform to the condition of the person to whom the signs are addressed. The organ of the faculty, by which we are enabled to use a sign for something signified, is called that of *language*. It is easy to see that the power is *peculiar* in its nature, and we should be led to suppose it would be manifested by its appropriate organ.

But we are not left to mere conjecture. It is proved by nearly all the tests. It is possessed in very different

degrees, by different individuals, who have other powers, in equal degree. It does not belong to the lower animals generally. Half-idiot children there are, who never speak, although they do many things, like reasonable persons. There have been cases of disease in the organ. Dr. Hood, of Kilmarnock, had a patient, who had the ordinary knowledge of written and spoken language, but who suddenly began to speak incoherently. She had forgotten the name of every object in nature. The particulars of this case are mentioned in the Edinburgh Phrenological Journal, and are copied into Mr. Combe's system.

Where situated, and how developed. — The organ is situated in the posterior and transverse part of the orbitary plate, and, when large, presses the plate and eye downward and outward. When the fibres are long, they press the eye as far forward as the eye-brows. If only thick, they press them towards the outer angle of the orbit.

Function of the organ. — I have already remarked, that it gives the power of connecting ideas with substituted signs. But the superior intellectual faculties assist to *invent* artificial signs; and signs cannot, in the nature of things, be antecedent to the thing signified. Signs, too, require to be multiplied, and modified, according to the sensations and conceptions of the mind. Hence, if we look into the grammar of a language, we shall find that the *sorts* of signs correspond to the functions of the several faculties. This shows why, in a language, there are different kinds of words, or parts of speech. Thus, if I say, Behold three large colored men, who are rapidly running, side by side, across the

bridge — to conceive the statement above requires the activity of individuality, form, size, weight, color, locality, order, number, eventuality, and time; and to express it requires the use of nearly all the parts of speech.

Persons, who have the organ of language large, and active, have a torrent of words flowing in upon them, whenever they become excited, in speech, or composition. But it does not follow, that such will be forward to appear on occasions, which require the exercise of language, because there may be great cautiousness, secretiveness, or diffidence. Another manifestatio nof the activity of the organ may be found in the disposition some people show, to give new appellations to familiar ideas. If the reflective organs and marvellousness be large, as well as the organ of language, the individual will be likely to have great facility in inventing arbitrary signs, and new varieties, and compounds. One of the signs of the great activity of the organ is a conscious desire to find a name or sign to represent every new idea.

Such people, too, will have a vivid recollection of a vast number of signs, with which they have been in the habit of associating their ideas. When the doctrines of Phrenology come to be generally understood, the admiration excited by the possession of a great number of dead and foreign languages will be much diminished. It will then be considered merely as evidence of a large organ of language, and as no evidence of superior general talents.

XXXIV. — Comparison.

The perceptive organs, thus far examined, enable us to contemplate all the particular qualities and relations of an object, as isolated particulars; individuality being as the trunk, of which all the rest are but branches. These serve, as it were, to enable us to see and define all the particular qualities and relations of things, and, taken together, to regard them as one whole. Comparison is the organ of the faculty which judges of the fitness of one thing, thus viewed as a whole, to another. It enables us to take into view and compare all our objects of knowledge, discriminating differences and resemblances between things taken as an aggregate. It also discovers general attributes. Dr. Spurzheim remarks, that "It compares, discriminates, separates, abstracts, adapts, and generalizes." It enables us to see resemblances and differences, and to compare the innate qualities of one thing with those of another.

It enables as to adapt and adjust one thing to another in due proportion, so as to produce an harmonious whole. Hence comparison becomes a leading quality in that combination which constitutes judgment. As such, it is of great importance in the character, and I have never seen an individual, with the organ in question small, who was characterized for sound judgment. It does not follow, however, that every one, who has this organ large, will have sound judgment. Defective perceptive organs, — small power of tracing causation, — particular, strong, and wayward propensities, — all, or any of these, may cause a defect in presenting to comparison the materials for sound judgment. This subject will be resumed

in an article upon judgment, in a subsequent part of the work.

Location of the organ. — The organ of comparison is situated below benevolence, extending downward to the centre of the forehead, in the shape of an inverted pyramid. Its great activity tends to increase the size and activity of benevolence. Hence I frequently observe large comparison and benevolence in the same head, and connected with great active benevolence. This characterizes the head of the Rev. Dr. J. of Boston. Hence there is a more intimate connexion between high intellectual activity and moral improvement than is generally supposed.

It does not follow, that a person who is prone to make playful or poetical comparisons has a large organ or faculty of comparison. It implies, rather, the activity of marvellousness and mirthfulness. Poets and painters are as likely to have the organ small as large. Those who form their judgments suddenly, on subjects of great moment, do not thereby indicate the superiority of the comparing power, but rather that they have acted with very little of its aid. The proportion which is most likely to be connected with strong comparing power is marked by a gentle curve line, horizontally drawn around, near the centre of the forehead.

XXXV. — Causality.

We have noticed the faculties which make us acquainted with the physical qualities and relations of things, and also that which points out their identity, analogy, or difference, and their harmony or incongruity. There yet remains to be considered a faculty which observes

the relation of cause and effect, and the nature, source, power, capability, use, and adaptation of things. All these require a power which looks beyond mere physical peculiarities. If we see smoke, we know it is an effect caused by fire. A stream suggests a fountain. In man we see physical, moral, and mental power, and the adaptation of his organization so as to confer this power. We study the functions of all the animated creation.

The faculty which enables us to take this internal survey of things is causality. When the organ is active, it looks for those innate qualities and relations, just as we look for form, size, color, &c., in physical nature.

There are great differences in the degrees in which this power is possessed by different individuals. Some are able to observe for themselves and make the correct deductions. But far greater numbers depend very much upon the authority of others, without seeing the dependence themselves.

The mind relies upon the uniformity of natural laws. When, therefore, any thing, or combination of things, is ascertained to be a cause, or an effect, the foundation is laid for a *general principle.* But in arriving at this, we need to multiply our observations under a variety of circumstances by what is termed induction. Those who would have entire confidence in the results of mathematical inquiries will repeat the operation several times. *The Baconian system of induction is but such a repetition of observations, under different circumstances, as to preclude, as far as possible, any mistake.*

Where effects may spring from several causes, or where several circumstances combine, and but a part of them act as causes, repeated observations and experi-

ments are necessary to the discovery of truth. This is peculiarly the case in observations upon the relation between cerebral development and mental manifestations. Owing to this, careless observers and thinkers, and those who are deficient in the organs of causality and comparison, will never be able to see the full force of the evidence on which Phrenology is based.

If we have established the relation of cause and effect in a particular case, our reliance upon the uniformity of natural laws leads us, whenever we see the cause, to infer the effect, and whenever we see the effect, to infer the cause. Thus, having established the organ of self-esteem, whenever we see that organ large, we may infer the large endowment of the sentiment; and when we see a constant manifestation of the sentiment, we infer the large size of the organ.

Sometimes we find a long chain of events, each of which, when viewed in relation to prior events, is an effect, and also the cause of a subsequent event. But at every stage it is necessary to see that each effect is correctly inferred and stated.

From this view of causality, it will be observed to have a very extensive bearing upon the human character. Mr. Combe remarks, that "The mind in which causality is very powerful, surveys the phenomena of nature, and the conviction of a cause for them arises irresistibly and intuitively from the mere exercise of the faculty. Benevolence and design in the arrangement of the moral and physical world are clearly perceived by it, and it therefore infers instinctively, that benignity and intelligence are attributes of the cause that produced them. Hence all master spirits are believers in God."

Location. — The organ of causality is situated between comparison and mirthfulness. In some, the organ in question is developed with mirthfulness, as in Franklin. In others, it is developed by itself, and may be distinctly noticed by the side of comparison. The organ is easily observed, and, when large, will manifest itself readily, in the conversation of the individual. When more active than comparison, and when the powers of observation in general are deficient, it is liable to excessive activity. In such cases, the individual may manifest great originality of mind, and extensive research, but will be wanting in strong, practical common sense.

Natural language. — If the reflective organs predominate greatly, and especially causality, the individual, when thoughtful, will hang his head forward, and will move it slowly about. But when the perceptive organs are principally active, there will be greater quickness of movement of the head and eyes. If, however, the individual's perceptive organs be intensely engaged in the contemplation of distant scenes, his chin will be thrown out, and with it the active organs will be thrust forward, with the eyes wide open, as if fixed on some object.

A comprehensive view of the intellectual faculties will enable us to see how necessary they all are to constitute the perfect intellect. If the perceptive organs be large and active, and the reflective small and feeble, there will be great power of observation and but little of reflection. If, on the other hand, the reflective organs only be large, then they may possess great power and spontaneous activity; but, deprived of the materials which are alone gathered by the aid of the perceptive organs, they will be active to little purpose. Where there is great power

in both the perceptive and reflective organs, we have an organization favorable to the discovery and communication of philosophical truth. Any great predominance in any one or a few of the intellectual organs is a source of weakness, as it throws the character out of balance; and in all those efforts of thought, which require the exercise of the feeble organs, the mental processes will be defective.

We need the *whole* to constitute the finished intellect. Individuality, with its branch organs, makes us acquainted with objects and their qualities and relations; eventuality observes movements and changes; comparison discriminates, identifies, harmonizes, and comprehends all the parts; while causality looks to the cause, nature, source, capability, and adaptation of things.

CHAPTER IX.

GENERAL VIEWS OF THE EXTERNAL SENSES, AND OF THE CEREBRAL ORGANS.

The structure and functions of each of the external senses were briefly explained in another part of this work. It remains now to examine some of those particulars which apply to them all.

The first remark is, that the organs of the external senses, as well as those of the brain, are all double. This seems designed for a wise and benevolent purpose.

If we unfortunately lose one organ, the other soon acquires strength and performs the functions of both.

But a question of some difficulty of explanation has been made, why double organs should not convey to the mind double impressions of the objects contemplated by them?

Let us examine this subject. Objects impressed upon the external senses stimulate the internal organs to form ideas. This stimulus is not distinguishable, as coming through double organs. The impressions made on both contribute to stimulate the internal organs. But where one eye would, when exercised alone, have an image on the retina, different from the other, as we may suppose might sometimes be the case, the eye which held the strongest impression would prevail, and the impression on the weaker would be only accumulative. Let us take the experiment suggested by Mr. G. Combe, which may be easily tried with spectacles. Suppose you have one glass, thin, yellow, and transparent, and the other thick, blue, and opaque. The object viewed through both glasses, will appear just as if both glasses were tinged with yellow, but will not be seen quite as distinctly, as if both were equally transparent. Here the stronger image on the retina of the eye, shaded by the yellow glass, rules the internal impression, and all that the eye, covered by the green, does, is to *help* to suggest the idea which is principally formed from the communication through the other eye. This explains how the impression made upon the brain may be in effect the same as if conveyed through a single organ. If one eye were shut, and an impression were made upon the other only, this impression would be conveyed as much to the intellectual

organs of one hemisphere of the brain as of the other. It is not by consciousness, that we know how much is done by one organ, and how much by the other, or that we see with two eyes, rather than one. This, however, may be known in various other ways, as by shutting one eye, or by experiencing sensations of pain from too intense an exercise.

One eye is *habitually* more active in transmitting impressions to the brain than the other, so that our eyes (optical instruments as they are) may be very justly compared to the spectacles with green and yellow glasses. This may be illustrated. Place two objects so that the nearest will, with both eyes open, appear exactly in a line from the eye to the more distant object, — then shut one eye, and the more distant object will appear in a line still; but open it, and shut the other, and it will appear some inches one side. This shows that one eye controls the other. Hence we have an explanation of single consciousness, when the organs of the senses are double.

But we have not yet explained the phenomenon of our contemplating objects singly with double cerebral organs. Here I think we have a key to the solution of this difficult question. The two hemispheres of the brain are frequently of unequal size. There is *usually*, indeed, some slight difference, and sometimes it is such as to be quite perceptible. Now if both hemispheres are active, the conceptions formed by one might reasonably be supposed to be stronger than those formed by the other. Yet both are active, and only slightly differ in their degrees of activity. Now, as in the case of the external senses, the stronger and more active organ would give the im-

pression, and the other would only *assist* to make it the stronger.

That both of the organs of the external senses are active at the same time, is apparent from the fact, that we hear better with both ears, and see better with both eyes, than with one. And so with the brain; if we think and feel with both hemispheres, we shall think and feel more forcibly, than when only one is active. It is believed that the doctrine, that only one of the organs of sense, or of the brain, is active at the same time, and that they alternately act and rest, is not correct; and, therefore, cannot be admitted as an explanation of single consciousness.

I have thought it quite possible that the laws of habit, and of exercise and rest, might throw some light on this subject. Suppose the mind active for a long time, until its organs became fatigued, and that one hemisphere had been more active than the other, and had become more weary; if, in such case, exercise were continued, would it not be quite natural for the side more fatigued to yield its load to the one less so? This is quite analogous to a change of the weight of the body, from one side to the other. Most of us, I believe, will recollect times when, from some anxiety of mind, we could not compose ourselves to sleep, and yet our thoughts were confused; and, having changed the position of our heads from one side to the other, (by which the pressure on the brain is changed,) we have felt temporary relief from our confusion. We have then, perhaps, seen our subject in an entirely changed light. Was not this in consequence of a change in the lead of the cerebral organs?

On the peculiar Formation of the Senses, as fitting them for their distinctive Functions.

Objects, with which we become acquainted through the external senses, have many distinctive qualities, and we need one sense to determine one quality, and another to determine another; and we may determine the same quality by more than one sense. We may become acquainted with the form and size of an object, both by sight and touch. So by touch we may determine that water and spirit are fluids; but smell, or taste, or sight, are necessary to determine which is which.

The senses serve also the further purpose of correcting each other. By the sense of touch we determine the errors of sight. They also obviously contribute to make more deep and vivid the impressions upon the cerebral organs.

Laws of the Exercise of the Senses.

The functions of the senses are improved by observing the laws of exercise and rest. If we neglect their exercise for a considerable time, they become like a bandaged arm. The blood ceases to flow into them, and the senses suffer in their structure.

They should be exercised with a reasonable degree of intensity. As slow walking is no exercise, so is much of the moderate using of the senses no exercise of them. They should *rest* at regular intervals. This gives them an opportunity to restore their lost vigor, and to gain something more for increase of power.

Limits of the Senses.

After what has been said of the functions of the external senses, and of the internal cerebral organs, it would seem almost unnecessary to point out the precise limits of each. Still, these should be very distinctly contemplated by the mind.

1. The senses, it should be recollected, have no power to form ideas. The image of an object of sight is painted on the retina of the eye, but this is not the idea. The optic nerve communicates between the retina and the brain, and the cerebral organs form the idea. So if I touch a book, it is not the sense of touch which gives me the idea of the book, but the internal cerebral organ. The nerves of feeling in the hand communicate the impression made upon it to the brain, where the organs of the brain form the idea.

There is some difficulty in distinguishing between the functions of the internal and the external organs.

The best test for determining is this, — external senses cannot recall former impressions, without the presence of the object by which they are formed. But the internal organs have this power. Whatever can be revived by an effort of conception, or memory, is the work of the internal perceptive organs, and not of the external senses.

CHAPTER X.

TEMPERAMENTS.

TEMPERAMENTS have attracted the attention of medical men, in reference to disease, from early times; and having been noticed to produce an influence on the mental and moral conditions, have by some been erroneously considered as sufficient to explain all the great differences in moral feeling and mental manifestation. But this was refuted by recurrence to facts, as observation will show, that every sort of feeling and talent may be observed along with any variety of temperament. The truth requires that we should take temperament into view, *in connexion with cerebral organization, and other conditions, allowing to each their appropriate and peculiar influence.*

Temperament results from the different proportions or equilibrium among the parts that make up our organization, and is but an extension of the Doctrine of Proportions, noticed in a former chapter, (page 33.) There is in each individual a mode of existence which distinguishes his temperament from that of any other.

There are four temperaments usually spoken of among physiologists. These are the *Sanguine, Lymphatic, Bilious,* and *Nervous.*

When the balance of the system is overborne by the great size and energy of the heart, lungs, and blood-vessels, indicated by a sharp and strong pulse and ruddy complexion, the *Sanguine temperament* appears. In such an individual, the blood will, by the agency of the lungs,

be impregnated plentifully with atmospheric oxygen, and flow freely through the minutest parts of the system, and furnish a fine stimulus to the brain. Persons of this temperament will bear sustained effort without injury; and, if exhausted, soon recover tone. They are usually fond of a good share of animal food, eat with avidity, and appear, like carnivorous animals, to devour their food, — but their digestion is imperfect, and they often remain dry, thin, and gaunt.

This temperament operates in a manner calculated to increase the activity of many of the cerebral organs, as alimentiveness, amativeness, adhesiveness, combativeness, destructiveness, hope, benevolence, and intellect generally. The perceptive organs, in particular, are likely to be exceedingly acute, in individuals of this and the nervous temperament, especially when inflammation commences. A gentleman of this temperament informed me, that when he had a lung fever, a few years since, the room in which he was appeared always light, and he could see with great distinctness, when others could not. Among a large number of us, in a stage, in the evening, he was the only one who could give us the time, by looking at his watch. This temperament tends to counteract the ill effects of too large cautiousness, and too small self-esteem and hope, — but inflames too large hope, benevolence, combativeness, &c. Hence we associate with a sanguine man a choleric temper, and visionary, sanguine expectations. Hence, too, the old notion, that persons of this temperament love variety, and are generous, quick, and delicate in love.

Moderate living, and moderate exercise, will reduce an individual from this, to a more equalized state of the

system. High living tends to inflame the propensities, while moderate and temperate living are more favorable to the calm action of the higher sentiments and higher intellect. One, therefore, should regulate his diet, not only from immediate regard to health, but in reference to mental and moral conditions. Criminals are best reformed upon low diet.

Lymphatic temperament. — This temperament is determined by the proportion of the abdominal viscera. When these are large, they have a tendency to activity, and they convert into chyle a great portion of what is taken into the stomach. Persons of this temperament eat little and often, digest continually, and sleep freely. In such persons, if the lungs and heart be small, the proportion of the fluids to the solids is too great. The skin is plump, muscle soft, and the whole person becomes corpulent. The serum in the blood is in too great proportion, and the blood is not sufficiently impregnated with oxygen, to produce a sufficient stimulus to the cerebral organs. Hence the individual will be averse to either bodily or mental activity. There may be a fondness for reading, and correctness of judgment, but little spontaneous activity, or deep feeling. A combination of this temperament, with large hope and benevolence, and small cautiousness and acquisitiveness, would incline one to indolence, ease, and improvidence. History does not abound in such characters, for they are about as soon forgotten as dead. They may be said to vegetate while they live. This temperament may be improved by active physical exercise, short sleep, forced study, frequent use of the lungs, as in public speaking, or reading aloud, with spare diet, which is composed of a good share of fibrous meats.

Bilious temperament. — Mr. Noble, in an article on temperaments, in the Edinburgh Phrenological Journal, has a new view of this temperament, by which he is able to account for its influence upon the activity of the cerebral organs. The temperament, as its name would indicate, is to be found where the biliary system predominates. "It must," says he, "be regarded in two points of view. 1st. As to the depuration of the venous blood, and the healthful stimulation of the alimentary canal. The due arterialization of the blood is essential to the full possession of its vital qualities." This process, we have seen in another place, is performed in part, at least, by the agency of the lungs. The organ which secretes bile, also contributes largely to this process. Again, there subsists at all times a strong sympathy between the brain and alimentary canal, so that, when one fails to perform its functions well, the other soon begins to suffer. The bile is well known to act as a powerful stimulant upon the intestinal tube, into which it is conveyed from the liver by its appropriate duct. Hence we may see the manner and degree, in which the functional activity of the brain may be affected by the character of the biliary system.

The signs of the predominance of this temperament are, — a hard and strong pulse, veins cutaneous and projecting, — complexion swarthy, hair black, or dark brown, the body moderately fleshy, and the muscles firm and well marked.

Observations have shown, that individuals characterized by this temperament, are more likely to be energetic, and active. They are less sensual than those of the sanguine, and less indolent than those of the lymphatic

temperament. When the liver is diseased, and its effect is to stain the skin, it becomes less agreeable in its effect upon the brain, because it no longer serves to eliminate the noxious ingredients of the venous blood, which therefore becomes thick, dark, and sluggish, and fails to give a lively, healthful stimulus to the brain. Persons in this state, feel the depressing effects of too active cautiousness, reverence, and marvellousness, while self-esteem is inactive. In these gloomy moods, they are troubled with a pressure of blood upon the brain, and great depression of spirits, and often predict that they shall not live long. Again, secretiveness, acquisitiveness, and destructivenes become diseasedly active, and they believe that they are coming to want, and that conspiracies are formed against them; at other times they will appear to take a great interest in religion, — perhaps make a profession. But all this is no evidence of a healthful change of views and feelings.

Nervous temperament. — The writers on temperament, so far as I have seen, speak of a nervous temperament. I have been in great doubt as to the propriety of this. Mr. Thomas describes it as indicated by the large size of the head, compared with the other parts of the system. This condition is sufficiently taken into view in the remarks made upon the size of the head, as a measure of power, and in our remarks upon the brain. What, however, constitutes the nervous temperament, is a head too large for a due proportion to the abdominal and thoracic viscera. This is a source of weakness, and tends to disease, as is explained in the chapter on *Proportion.* When the thorax is large also, there may be great energy of character, as in the case of Cassius, Brutus, and

Cicero. But where the head alone is large, there may be great precocity, and great genius, — constituting a poet, an artist, or mere man of science, as in the case of Tasso, Pope, Voltaire, Rousseau. Persons of this cast may, under great excitement, sometimes perform wonders, — but will more often be unfit for any effort. Plutarch says of Pericles, that sometimes he was to be seen sitting in the street, fatigued by the weight of his head, and not knowing what part to take in the disorders of the State, and at other times thunder and lightning issued from his monstrous head with a tremendous noise.

A large head, connected with a large abdominal viscera, and small thorax, will be a source of weakness. The blood will be but imperfectly supplied with oxygen, and deficient in quantity; such persons will be likely to manifest stupidity, and inefficiency, rather than talent.

With these preliminary remarks, it may be important in this place, to take a slight view of some of the influences of the nervous system. Indeed, the *nervous* temperament cannot be thoroughly understood, without some knowledge of the nervous system. This knowledge is yet but imperfect. Philosophers of the present day are turning their attention to this part of our system, with great care and earnestness. The nerves may be traced, as may the muscles. They are visible and tangible. But there is supposed to be an invisible nervous fluid, or agent, which is known only in its effects and influences, as it acts upon the nerves. Like blood, it is essential to the vital action of every animal organ. When I move my arm, the muscles of that limb are called into play by an influence transmitted to it from the brain along the nerves. But these nerves serve only as conductors of the

influence. This stimulus is so essential, that, if a nerve be divided, no effort of the mind will excite it into action.

The perfection of this influence depends on the perfection of the nerve. The principal seat of this influence is in the brain; and the perfection of the influence depends much on the condition of this organ. Pleasing excitement increases its influence. Depression of feeling, and depression of this influence, will impair the functions of the organs.

The quality of the nervous influence depends upon the condition of the brain. Hence, when all the organs of the brain are in healthy, vigorous action, under agreeable stimulus from the blood, the nervous influence sent forth is the most powerful, and all the functions are performed with ease and vigor.

Habits of mental indolence, or of too high mental excitement, are opposed to the laws which govern this part of the system.

Much of the quality of this influence depends upon the class of mental organs brought into agreeable exercise. If the sentiments have the ascendency, and the propensities are active in harmony, but in subordination, then the nervous influence is the most happy imaginable. But if the propensities predominate in activity, and the mind be at war with itself; or if grief and remorse indicate the wounded action of the sentiments; the nervous influence sent forth, is impaired, and bad health will be the necessary consequence. Physicians, who know these facts, will labor to bring into the most agreeable and sprightly action all the feelings, that a favorable nervous influence may coöperate with their medicine to produce the desired effect.

If vital action be concentrated in one part of the brain, the nervous stimulus sent forth is insufficient to excite the lungs, and digestive and other organs, — hence sighs, disordered digestion, and dispepsia. The influence of the brain is so direct, that affections of the head are often first indicated by sickness and vomiting. *The conversation of the physician often has quite as beneficial an effect as his medicine, and is quite as deserving of remuneration.*

From the above remarks, principally derived from Dr. A. Combe's work on the laws of health, it will be readily conjectured, that the nervous system has a most wonderful effect upon mental manifestation.

The nervous temperament should not be mistaken for a diseased state of the nervous system, owing to general weakness and irritability. Yet there is danger, that, in speaking of the nervous temperament, you will be understood as indicating it when morbidly excitable, and therefore as rather a diseased, than as a healthy, condition. A sedentary or inactive life, habitual indulgence in sensuality, morbid action of a part of the brain, — all these tend to produce this diseased condition. Neglect of the laws of exercise and diet does not increase nervous power, but diminishes the muscular power, and deranges all the functions of organs, which operate to check the predominance of the nervous system.

Combinations of Temperaments.

It will be easily seen that the most perfect temperament is, what may be termed, mixed. In this the proportions of the nervous system, thorax, and abdomen, are perfect. This is but another method of indicating the great doc-

trine of proportion. Where this proportion is maintained in all the parts of the system, size becomes the true measure of power. By proportion here, is not meant so much that which constitututes superior beauty, for the proportion here contended for, may exist in a tall or short, stout or thin, beautiful or ugly person.

The *nervo-sanguineous* temperament is one of great power, and favorable to a high degree of activity of the system. The head and thorax will be large, and habit spare. But the danger of this temperament is, that the digestion will suffer, and in consequence the whole system will suffer.

If to this we add the bilious, we have a temperament the most active imaginable.

The *nervo-lymphatic* temperament is characterized, as the temperament of children and females. The lungs and heart are small, and power of endurance moderate. Yet, with a good share of excitability, the form will be well rounded and handsome, and the head well developed, — but the skin will be characterized by softness and paleness.

The *sanguine* and *lymphatic* will be indicated by large muscles, bones, cellular membrane, thorax, and abdomen, and a small head. A person of this temperament will be more of an animal than a man; and will usually be characterized by the predominance of his propensities over the sentiments and intellect. This often characterizes great bullies, and those who always labor in the open air.

CHAPTER XI.

QUALITY OF THE BRAIN.

By *Quality* here is meant something quite different from temperament. It has reference merely to the degree of firmness and perfection in the *structure* of the brain. Some may suppose, by this time, we make the manifestation of mind depend on so many conditions, that it is impossible to form any accurate judgments on the subject. Let it be answered to this, that phrenologists observe facts, and take into view all these particulars, — not to render the subject complicated, — but because they have an important bearing upon the degree of correctness of the judgments, which we shall be able to form upon individual character. If you were to purchase a piece of cloth in reference to beanty or durability, you would not disregard the quality or firmness of the texture. On this subject I will give the views of some of the able writers in the Edinburgh Phrenological Journal, simply observing that I am in the habit of practically regarding them in my judgments of character. The writer, in Vol. VI., p. 282, remarks: — "If any one were shown any of the bones of the skeleton of a delicately formed female, and of a strong and active laborer, the former of whom had lived a life of indolence and ease, and the latter one of hardship and toil; he would be at no loss to decide, independently of their size, to which of the two they had belonged. The bones of the female would be as easily distinguished by their smooth-

ness, roundness, and fineness of texture from those of the laborer, marked as the latter would be by their size, coarseness, and angular roughness, as the fine skin of the one is from the coarse covering of the other. Every part of the system follows the same law. In the lowest ranks of life, we may meet with a man bearing externally the same form of body, and the same size of brain, with a man who is remarkable in another sphere for his talents and general vigor of mind; but in two such persons, the *stuff* or *quality*, of which each is made, may be widely different. Contrast for a moment the thick coarse-grained sculls of some of the New Hollanders, with the fine texture and smoothness of the Circassian or Hindoo sculls, and you will find it vain to attempt, even in fancy, to figure them filled with brains of equal quality. With the same mental powers, where the development is alike in size, there will be a coarseness and roughness in the manifestations of the one, from which the other will be totally free. And this is felt in different individuals, even in civilized life. Of one man we say, that he is equally shrewd, kind, just, and affectionate as another; but still he is not so refined in his manner of manifesting his feelings. Much of this difference depends on the quality of the brain, as well as on the peculiar combination of faculties; and in determining the capacities for improvement, either of nations or of individuals, this must be kept in view, otherwise gross errors will be committed."

Also we find the following interesting remarks in Vol. VIII. of the same work, p. 369.

"In the majority of human beings, the *quality* of the bodily organs varies within such narrow limits, that greater or less size affords an accurate indication of their

relative force and influence. But in a few individuals, at the extreme points of the scale, the difference of *quality* is so great as to modify the effects of mere size.

"That the difference of *quality* here insisted on is a fact in nature too influential to be overlooked, and not a mere ingenious supposition, may be easily established by observation. How very remarkable, for example, are the shades of coarseness or fineness in the skin and hair! How very easily does every cook recognise the difference in the muscular system, in the greater or less coarseness of beef! How readily, too, does the anatomist generally discriminate female from male bones, by the greater fineness of their texture! And how very coarse is the fabric of the scull and skeleton in savage tribes, compared with their appearance in civilized man! So very striking are the differences of quality in the sculls in the Phrenological Museum, that when noticing Blumenbach's plates, in the 23d number of this Journal, (Vol. VI. p. 282,) Dr. Combe expressed his conviction, that, in most instances, a pretty accurate notion of the *quality* of the bodily organization, that of the brain included, might be obtained from the inspection of the scull alone; and many circumstances concur to show that such is really the case; and that where one texture is remarkable for any particular quality, all the rest will be in harmony with it, — great fineness and delicacy of structure in one part being rarely, if ever, accompanied with coarseness of other organs."

As the difference in the quality of different brains cannot be matter of direct inspection, when forming judgments upon the individual in full life, we are obliged to rely upon inferences drawn from inspection of other

parts of the system. And as the laws of hereditary descent demonstrate that we *may* inherit the peculiarity of one ancestor, as to one part of the system, and of another ancestor, as to another part, we should be careful not to form our judgments upon a single circumstance. For instance, coarse skin or hair alone should not lead us to infer a coarse texture of brain. As the individual may have inherited the coarse skin of the father and the fine brain of the mother, &c. But we should take into view *all* the concurring circumstances, as the hair, skin, formation of features, general formation of bones, &c. &c.

Diet, and the degree and kind of exercise pursued, unquestionably have an influence upon the *quality* of the whole system. Suppose a large family from the humble walks of life, who have been reared in a retired country place, on coarse and homely fare. Let all of them remain but one, who shall be placed under other influences — and shall enjoy reasonably the excitements and luxuries of a healthy city, or large town, for twenty years, in the higher walks of life. Then let them come together, and my word for it, — you will see a great difference in the appearance of them! You would almost say that the absent one had been *made over*, and that he had been wrought out of a finer material than the rest. His head too will be larger and more fully and equally developed. The improvement in this case will have arisen, not less from the superior activity of the brain, (which indirectly improves the action of the heart, lungs, powers of digestion, &c.) than from the superior quality of the aliment to which he has been accustomed.

CHAPTER XII.

PRIMARY AND SECONDARY INFLUENCE OF THE AFFECTIVE FACULTIES EXPLAINED.

Every organ has a primary and secondary influence. The primary influence is directly on its object, — the secondary is indirect, and comes in by reflection. Thus the primary influence of approbativeness is, to desire notoriety. It may have a secondary influence in leading us to desire riches, that we may attract notice by our display. Self-esteem directly desires power, and to feel conscious of its possession. A moment's reflection is sufficient to enable us to see that wealth confers power. Wealth may therefore be sought under the stronger, but still indirect and secondary, motive of self-esteem.

This principle is of the greatest importance in forming judgments of character and motive. For instance, here is a man, who has assiduously toiled, night and day, for many a long year, to accumulate wealth. He has, perhaps, denied himself many comforts; — the world think him avaricious, and say, if acquisitiveness is not predominant in his head, then there can be no truth in phrenology. An examination is made, and the organ of acquisitiveness is found to be no more than average. But the eye soon discovers a large development of approbativeness and self-esteem. You put the inquiry, what has induced him to toil so long and incessantly to accumulate wealth, and the answer will reveal the motive. You will find that acquisitiveness, although the apparent

and direct motive, is much less powerful than the secondary. He desired to possess wealth, that he might have power, and make a display. His language will be, it was a desire to raise myself in the world, and not be constantly mortified by the insolence of the rich. If secretiveness be active, he may attempt to deceive you with a story about his desire to provide comfortably for his children, &c.

I have remarked, that when secondary feelings act indirectly, as in the above case, you will find the individual has a respectable share of the higher intellectual faculties. When higher intellect is deficient, and the individual acts instinctively, the character is much more *simple*, and the motives more direct; such persons go by sense and instinct, rather than reflection.

Another thought in reference to the organs is this, that their manner of manifestation will be influenced by the state of public opinion, sentiment, and of society. For instance, dignity bears the same reference to self-esteem, as conscience does to conscientiousness, — and what would be dignified in one place, would not be so in another. So that intellect modifies all the actions of the feelings.

Again, the assistance of the secondary organs is necessary to modify, and often to disguise, the action of the primary feelings. Amativeness is elevated, refined, and softened by the simultaneous influence of adhesiveness, benevolence, and reverence. Philoprogenitiveness is assisted by adhesiveness, benevolence, conscientiousness, cautiousness, &c. Acquisitiveness loses half its grossness, when active in connexion with the higher sentiments, and the domestic feelings. In the higher classes, where

there is a more general activity among the faculties, they are modified, and blended, and softened, so as to change their appearance very much.

CHAPTER XIII.

THE ACTIVITY OF THE INTELLECTUAL FACULTIES — THEIR POWER TO EXCITE THE FEELINGS.

The intellectual faculties alone produce ideas; — the propensities and sentiments are blind, and their functions are to act upon the intellect, and also are susceptible of being excited to action, and of receiving gratification, through the agency of the intellect. The intellectual faculties tend to activity, and this activity is greater or less in degree, from mere perception, to conception, memory, imagination, fancy. This action may be *spontaneous*, or it may be excited by *external causes*, or by both combined. In these various stages of activity, they become the causes of excitement to such of the affective faculties, as are interested by the objects contemplated by the intellect. Thus the intellect may spontaneously contemplate an absent friend, or it may be excited to such contemplation, by seeing a letter from him, and this will excite into lively activity several feelings, but more especially adhesiveness. The intellect serves only as a channel, through which exciting objects reach the feelings. Hence we may excite any feeling we please,

through the agency of intellect. When the feelings are not excited, *we have only to contemplate the exciting object, and the appropriate feeling will follow.*

Those, who exercise their intellects upon unexciting subjects much, will be able to contemplate what is presented to the mind with comparative coolness. The ease, with which objects will excite the feelings, and the intensity of the excitement, will depend upon the proportion which the feelings bear to the intellect, the size of both added together, their habitual activity, and also the degree in which they are refreshed, and have a tendency to activity at the time. In the same individual feelings, which are predominant in size and activity, will be most readily excited.

Hence, if we would influence an individual, we must appeal to those organs which are the largest and most active. If a public speaker would address the multitude in whom the propensities predominate, he should touch upon the objects which excite them. He should seize upon their prejudices. He should arouse their personal and party attachments, their local attachments, their love of offspring, their pride, love of praise, and their acquisitiveness. If any of the darling objects of these feelings have been abused, he may describe their abuses, and this will excite combativeness, and destructiveness, in addition. But the occasion should be one, when the feelings have a strong tendency to this kind of excitement.

CHAPTER XIV.

ACTIVITY OF THE FEELINGS, AND THEIR EFFECT UPON THE INTELLECT.

The affective faculties, also, have tendencies to *spontaneous* activity; and they are sometimes excited by external objects through the medium of the intellect. They require exercise, and this exercise cannot long be neglected, without an infringement of natural laws. Their influence upon the intellect is principally of three kinds.

1. When spontaneously active, they tend to excite the intellect to the contemplation of objects gratifying to them. As, for instance, when the feeling of benevolence is active, it will excite the intellect to contemplate benevolent projects, or objects in distress. In this view, the intellectual faculties become, in a manner, the *instruments* of the simultaneous, or successively active feelings.

The second influence, which the feelings sometimes have upon the intellectual faculties, is to excite them into a greater degree of energy and power, than what they possess, when active *without* being excited by the feelings. Some of the feelings produce this effect to a remarkable degree; and, when under this influence, the intellect is carried to a wonderful degree of clearness and intensity. This, however, is not equally the case with all the propensities. When some of the more gross propensities are active, the intellect is proportionably darkened. The exciting power of combativeness is

familiar to every one. Few are so powerful in argument at any time, as when excited by combativeness. The exciting effect of the feelings upon the intellect produces a sort of mental illumination. The more feelings there are simultaneously active, the more intense and concentrated is the light.

The third influence of the feelings upon the intellect is, to warp and prejudice its perceptions and judgments. To pursue the figure. — Sometimes the light of several of the feelings becomes so intense and unequal, that the object is viewed under deceptive aspects. The several feelings, too, impart their own distinctive character to the intellectual perceptions and judgments. Reverence exerts a grave and magnifying influence. Cautiousness casts forth sombre shades. Hope puts on the high lights. Ideality beautifies, and marvellousness exerts a creative influence, finishing up the distant and obscure. As different feelings exert different *degrees* of energy, and *kinds* of influence, at various times and under various circumstances, the mental states are constantly changing. Hence the perpetual succession of thoughts, day-dreams, and reveries.

CHAPTER XV.

FREE AGENCY — ACCOUNTABILITY — HABIT.

I HAVE above described briefly the *leading* influences of the intellect, and also of the affective faculties, in their

action and reaction upon each other, and the force of external circumstances in modifying these influences. This makes a very suitable immediate introduction to an examination of the doctrine of Free Agency and Moral Accountability. We may now see how far these laws of activity and excitability of our faculties, as it regards thought and feeling merely, are consistent with free agency. Whenever we knowingly and deliberately contemplate objects, which uniformly excite certain feelings, we do it voluntarily and in the exercise of free agency; and we are accountable for the feelings thus excited. If we voluntarily call up lascivious thoughts by an effort of mind, we are accountable for the feelings excited. But if such images are thrust before the mind, without any agency on our part, then the thoughts and feelings excited are produced by causes beyond ourselves, and for them we are not in the least accountable. So when strong propensities have been quiet and rested, until they seek exercise, and become spontaneously active, and exert a debasing influence over the intellect, and we change these influences as soon as we can, and do not willingly indulge the thoughts suggested by them, we are not accountable. By fleeing from scenes of temptation, and by gratifying the propensities in harmony with the higher sentiments, or in other words reasonably and morally, we may avoid, to a great extent, sins of thought and feeling.

But one point remains here to be noticed. Free agency concerns *actions* more than *thoughts* and *feelings*. It applies only to what is voluntary action, — what the mind consents to, and *wills* to be done. And we have seen that, in all the modes in which the feelings act upon the intellect, they may be gratified short of actions, —

they may luxuriate and exhaust themselves in thought. Actions may not follow. *The feelings, although more delightfully and suddenly gratified by action, are not irresistible in impelling us to act.* There is between the desire and act an intellectual *decision,* and an exercise of *volition* or *will.* When strong feelings come over us, they produce an effect on the whole system, visible in the form of natural language. But this is not voluntary. The intellectual decision, which precedes all voluntary action, is formed in view of *inducements.* The *balance* of inducements constitutes what we term the *motive.* When the motive is seen, we are in a condition to *move* or act. The inquiry now is, how is motive formed? *The constant action of the intellect, and of certain feelings for a long course of years, tends to fix settled habitudes of thought and feeling; and certain principles of action are embraced, which produce an habitual and steady influence upon our actions.* Men seldom become bad suddenly. They seldom commit crimes, until they have habituated their thoughts and feelings to criminal designs for a long time. Good characters are also formed in this slow, steady manner. Some, however, are *naturally* more inclined to goodness than others, and in their habits of virtue are more easily fixed. *In the formation of these habitudes, the physical organs are perfected, and improved, and made subject to certain physical laws, so that the head generally indicates externally the condition of the brain.*

We thus see how *moral character* is formed. Religious impressions are of the same steady, unperceived growth. In forming this character, our experience, the worldly influences around us, books, instructers, and friends, act upon our natural dispositions. These habitudes become

a part of ourselves, *and have a much stronger influence on our thoughts and actions* than any *new* or strong gust of feeling. So that we can predict with a good degree of certainty, how an individual, with whose habits we are acquainted, will act under given circumstances. We are undoubtedly accountable for our voluntary agency in forming these habitudes of thought and feeling. We are perhaps unconscious of these *permanent influences*, when they have a much stronger weight than any transient, fresh inducement. These habitudes grow more out of those feelings, which have a general regulating character, than out of others. Of these conscientiousness, firmness, cautiousness, and reverence are the principal. Now, as *motive is the result of the balance of inducements*, and as these inducements come *principally* from certain *habits* of mind, and as *will* acts subsequently to a decision of the intellect upon all the inducements, we see that we *are not subject to the slavery of sudden desires*, and "the strongest *desire* does not rule the action." When the feelings become deranged, and habitudes are broken, then moral liberty ceases and the strongest desire rules. Thus we are saved from this state, and made free agents by the force of a great variety in our desires, — by the conflict of feelings and the controlling weight of strong *habitual* feelings — and this controlling weight usually lies in the superiority of the higher sentiments. And in the power of balancing these, and in executing those things, which gratify the strongest amount of feeling, (as made up of those which are *transient* and those *which are permanent*,) consists all that I understand to be meant by *free agency*.

CHAPTER XVI.

DEGREES OF MORAL LIBERTY — FATALITY.

But although we have this free agency or moral liberty of action, while we possess sane minds, yet this liberty is possessed in different degrees by different individuals, in consequence of influences beyond our control. No one could determine the hereditary tendencies of his nature, his complexion, his proportions, the century in which he shall live, or the thousands of influences to which all are subject, more or less, through life. In these things we are the victims, I will not say of *fate*, but of certain *natural laws*. These tend, in many respects, to modify the extent of our moral liberty. If we have inherited from our ancestors a loathsome and incurable disease, or if born blind, or deformed, these are misfortunes. So if a child be born of parents, in both of whom the propensities strongly predominated, possessing what may be termed *ruffian* heads, and have inherited the strong vicious tendencies of both parents in an aggravated degree, what shall we say of its moral liberty? It is certainly less than that of a Franklin, or a Washington, or a Marshall. But even in such a case, there is some freedom, and an accountability co-extensive. Some individuals are so constituted, that they are not as likely to embrace religious truth as others. We know this to be true by observation. Still *none* are beyond the power of God, and the force of the great truths of religion is such, that when they are brought fully to bear upon those, who

are the most unfavorably constituted to receive them, God can make them effectual to change the heart. But *we* cannot shape the circumstances, which may act upon us, so as to bring these truths to bear upon us as we please, and herein are we *dependent*, and cannot *change our hearts by any direct efforts of our own.* We *can*, however, use the *means* within our reach, and should look to God for results. We see great and permanent changes wrought in character, expressed in the strong language of "regeneration." They *may* be sudden, but are *more usually results of a long and gradual process.* The change, so far as effects are apparent upon organization and character, is that from a predominating influence of the propensities, in which discord and abuse are manifest, to that of a predominance of the sentiments and intellect, — a state which produces harmony and obedience to both natural and divine law, and the intellect is led away from a predominating, habitual attention to secular thoughts, to an habitual contemplation of religious subjects. Thus, so far from the doctrines of phrenology being inconsistent with free agency, they in fact enable us to comply with natural laws, in such a manner as to increase our natural liberty. The better we are acquainted with these natural laws, and the more strictly we comply with their conditions, the more freedom we shall possess.

Since writing the above, I noticed the sentiments of Dr. Franklin, which bear on the above subject. It is evident that he did not believe that all men had equal moral liberty. At the same time he would admit the full resistant power of *habitude*, as a check to the force of sudden impulses. Had he lived in the days of Gall,

he could not have failed to adopt the principles of Phrenology. In a letter written to T. Paine, dissuading him from publishing his Age of Reason, he remarks, "I will not enter into a discussion of your principles, though you seem to desire it. At present I shall only give my opinion, that, though your reasonings are subtile, and may perhaps prevail with some readers, you will not succeed so as to change the general sentiments of mankind on this subject; and the consequence of printing this piece will be a great deal of odium drawn upon yourself, mischief to you, and no benefit to others. He that spits against the wind spits in his own face. But were you to succeed, do you imagine any good will be done by it? *You yourself may find it easy to live a virtuous life, without the assistance afforded by religion. You have a clear perception of the advantages of virtue, and the disadvantages of vice, and possess a strength of resolution sufficient to enable you to resist common temptation.* [A phrenologist would have said to Paine, you have a head in which intellect and the sentiments prevail over the propensities.] But think how great a proportion of mankind consist of weak and ignorant men and women, and inexperienced and inconsiderate youth of both sexes. We have need of the motives of religion to restrain them from vice, to support their virtue, and retain them in the practice of it, till it becomes *habitual*, which is the great point for its security. And perhaps you are indebted originally *to your religious* education for the habits of virtue, upon which you now justly value yourself. If men are so wicked with religion, what would they be without it?" The quotation above was not recollected by me, when writing the preceding pages, although I recollect now to have read it when a boy.

A man who has been religiously educated, and has believed in religion until his habits are formed, is in much less danger from throwing off their restraints, so far as this life is concerned, than one who has never been a believer. When the character is formed by force of habit, and the parts are cemented, the bands may be burst with *less* danger.

CHAPTER XVII.

ATTENTION.

Mental philosophers have spoken of Attention as a distinct power of the mind. From the view Phrenologists have taken of mental manifestations, attention means simply an active state of any intellectual faculty, or of several at the same time. To *attend* to any subject is to put into action the intellectual faculties upon that subject. It is common language to inquire, What are you *attending* to now? It means the same as if the expression had been, Upon what have your intellectual faculties been engaged? From the views taken of the influence of the affective faculties upon the intellect, in chapter XII. we are prepared to deduce the laws of attention.

1st. If a subject furnish an agreeable exercise to a large intellectual organ, or a class of large intellectual organs, it will be easy to give it a due share of attention. A person with a large organ of tune attends to music

with ease and pleasure. A person with a large, active organ of number attends readily and exclusively to arithmetical operations.

2d. When any subject is highly interesting to our feelings, they will excite the intellect to the subject. It is easy to think of an absent friend. When reverence is large and active, it is easy to join in prayer, &c.

3d. The *degree* in which our attention will be excited will depend upon the state of the organs, the number of large intellectual organs to which the subject gives an agreeable exercise, the number of strong feelings it gratifies, and the intensity of that gratification.

Thus, if our faculties be perfectly refreshed, as in the morning when we are in good health, all the faculties seem in a state of spontaneity, eager for gratification, and at such a time almost any subject will possess an interest. It should therefore be a rule to take up the least interesting subject then. When we have toiled through the day and become exhausted, scarcely any subject has an interest. You will find it difficult to influence a man to give you any attention to an article you would sell him late in the day. The morning is the time for business. So when one is in ill health, it often produces mental distraction. When a subject excites into action all the large intellectual organs, addressing itself strongly both to the perceptive and reflective faculties, the attention will be very strongly fixed, because all the organs act in harmony.

So when a subject excites several strong feelings, the attention will be easily secured. Present to the devout man the subject of religion, exciting as it is to all the higher sentiments, and you easily arouse his attention, to a great degree of intensity.

Students, who can be masters of their time and attention, will find their advantage in commencing in the morning with those studies which are the least interesting, and finishing with those which are the most so; and after study is over, to attend to literature, society, and amusements, for the purpose of exercising the feelings, and at the same time giving a new impetus to the intellect.

CHAPTER XVIII.

PERCEPTION, CONCEPTION, AND IMAGINATION.

PERCEPTION is not a distinct faculty, but indicates that the intellectual faculties are assisted and stimulated to action by certain external helps. Objects of sense are *perceived* by the intellectual organs, through the agency and stimulus of the senses. So if objects are described, by drawings, writings, or conversation, they will be perceived by the mind. When the steps of an argument are stated to me, I am assisted to perceive the relation of one step to another. But conception is an unassisted act of the mind upon its own materials. The degree of activity into which the mind may be excited will depend upon the interest of the subject. The mind may be more intensely agitated by its perceptions, than it would be in its own calm, spontaneous activity.

Perceptions may range from the faintest glimmerings up to the most intense glow. Hence a certain degree of perceptive power may be possessed by organs, which are too feeble for the spontaneity of conception. Many persons can merely perceive the difference in two colors side by side, but could not tell the difference if they saw them in different places, as in doing this they would be obliged to *conceive* the absent color, to compare it with the present.

Reflection seems to import that spontaneous activity of the higher intellectual organs, which is identical with conception, when applied to these organs. We may say with propriety that an argument is well *conceived.* We often say, upon reflection we *conceive* a thing to be so or so. Mr. Combe defines perception, as "the lowest degree of activity of the intellectual faculties excited by an external object, and conception, as a higher degree of activity depending on internal causes, and without the interference of external objects." To make perception depend on degree of activity, seems to me to be unphilosophical, because the degrees of activity are infinite; and I apprehend that the organs may be more intensely active in perception, than they sometimes are in conception. Others will decide which is right.

Imagination differs from conception in this, — that by the term *conception* we do not imply the formation of new combinations, but simply contemplate former conceptions or perceptions. But in an effort of imagination we make new formations and combinations, with reference to a definite purpose. It therefore implies the leading exercise of the comparing power, in reference to *propriety* and *effect.* Imagination requires the activity of

the perceptive organs generally, and also of causality and comparison; and the beauty of its creations will depend much upon the well regulated activity of ideality, which gives us delight in the beautiful. Fancy may be considered as synonymous with imagination. I see no good ground for the distinction made by Mr. Combe.

CHAPTER XIX.

MEMORY.

We have already spoken of perception, conception, and imagination, as modes of activity of the intellectual faculties. It remains to consider another mode of mental exercise, denominated *memory*. To constitute this, requires the reappearance of former perceptions, conceptions, or imaginings, in connexion with a *perception* of their relation to a past intellectual exercise. This act of the mind requires no new faculty, but is simply a function of all the faculties. The only point, by which it is distinguishable from other intellectual exercises, is that it is not the first time they have occupied the mind, and the mind perceives this fact in connexion with the things remembered. Sometimes the recollection is so distinct, that it is connected with a particular period.

As organs, which are small and feeble in their functions, will not perceive or conceive with clearness, so they

will manifest a feebleness in performing the function of memory. All their operations will be characterized by inefficiency. In perceptions, the want of power in the feeble organs is less apparent, because they are stimulated and assisted; but in memory their power is more distinctly tested. Hence we hear great complaint of poor memory, but none of poor powers of perception or conception. But one of the reasons, why a person does not remember his past perceptions, is that they were not clear and strong. There is feebleness in the functional power of the organs concerned.

Dr. Spurzheim was of opinion, that memory takes place among the affective as well as intellectual faculties. "It is true," says he, "the affective powers act without clear consciousness, and the mind cannot bring into fresh existence the perceptions experienced from the propensities and sentiments, with the same facility as the perceptions of the intellectual powers; yet it renews them more or less, and consequently I cannot confine the mode of action under discussion to the intellectual faculties. However, I distinguish between the faculties which have clear memory, and the species of notions remembered; the perceptive faculties alone have clear memory, and all kinds of perceptions are remembered." Mr. G. Combe is of a different opinion, and confines memory to the intellectual faculties alone. I think the matter will appear clear, when we recollect that it is the function of eventuality, to perceive or take cognizance of the feelings of the affective faculties, and to remember them afterwards. If so, it would seem that eventuality does what Dr. S. ascribes to the affective faculties. This at least is my view of the subject. It does not appear

that memory can be predicated of a faculty, which does not form ideas.

In the act of remembering, there is a combined and associated activity of many of the intellectual faculties, so close, indeed, that metaphysicians of the old school have mistaken their joint and associated action, for the work of a distinct faculty. Yet they could not explain why a man has an excellent memory for one class of ideas, and a very deficient one for another. If memory were a distinct faculty, its power would be uniform.

From observations upon the principles of associated action of the faculties, we are not only able to explain many facts, but also to arrive at certain rules for the conduct of the faculties on this point.

1. Most of the objects to be remembered require the activity of a large number of the intellectual faculties. If we remember an individual, it is usually by the greater or less activity of individuality, eventuality, configuration, size, weight, and resistance, color, locality, and language. If we recollect *when* we had known him, time and number are also called in aid. Those organs which are largest and most active will assist most in this effort. If the organ of configuration be large and active, the characteristic form of his person and features will be recalled most readily. If locality be large, he will rush upon the recollection in connexion with the place where he had been seen. If eventuality be large, he will be remembered in connexion with an event with which he is associated. Hence we have a clue to the formation of an artificial memory which will be suited to our organization. It should be formed upon the large organs. If eventuality be large, let every thing to be remembered be strongly

associated in the mind with an event. If locality be large, let your fastenings be upon some place, &c.

2. It is a great point in relation to memory, that, in the original perception or conception, we view it in all its aspects and relations clearly; that we fasten the subject upon the mind by all the cords; that all our ideas may be well defined, distinct, and vivid.

3. If you rely upon calling any thing to mind at a particular *time* and *place*, fix all the conceptions in the mind in connexion with that time and place. When the time and place are present, they come to the mind as perceptions, and these perceptions suggest the subjects to be recollected in connexion with them.

4. We have seen in another place, p. 162, that the feelings have a strong influence upon our trains of thought, and the degree of intensity with which we think. This principle gives us a clue to some of the phenomena of memory. Whatever interests our feelings strongly, will be strongly perceived or conceived, and also readily remembered. The mind will be much more concentrated and powerful. Hence, if we would profit by any studies or inquiries, or make any progress in them, we should become *interested* in them. They should strongly excite some very powerful sestiments. Reverence and wonder especially should be active; and we should also feel attached to the person who instructs. Ambition and a sense of duty should also be active. We know the fact, that any subject intensely interesting to the feelings is remembered without difficulty.

5. Another, and very strong principle in connexion with memory is this, that we not only call up the whole scene, with which the thing to be remembered is con-

nected; but endeavour that we be as nearly as possible in the same moods of feeling, and with the same intellectual faculties active, as when the scenes to be remembered occurred. I have often felt the force of this, by revisiting the place of a former residence, with all the inhabitants, and reviving the neighbourhood stories and recollections. By so doing I have resumed the feelings, thoughts, and indeed the peculiar mental individuality, which I possessed when a resident of the place. The scenes of the intervening period seemed to have vanished. Under such a state of feeling, the intermediate period will have lost all its effect, in obliterating the images of the time to which I am thus carried back.

The stronger the impressions of this period were, compared with the impressions of more recent date, the more easily we can slide back to it, and seem for the time to identify ourselves with it.

The impressions, made at the early period of life, and during the greatest vigor of the faculties, will be the strongest, so that old people find it easy to go back in feeling and identity with these early periods; and under such states they will recollect with great clearness all that then happened, while more recent events will not be recalled. We know that this is a striking fact in relation to old people, and this accounts for it in a manner more satisfactory to my mind, than any other explanation I have seen.

The necessity of bringing all our feelings and faculties into a state, approaching as nearly as possible to identity with that of the time when events happened, in order to be able to recall them, will be rendered very apparent by some facts, which have occurred to individuals in parox-

ysms of somnambulism. I will state some particulars which occurred about two years since, in the case of Jane C. Rider, known as the Springfield somnambulist. In the paroxysms, which generally came upon her while asleep, she would go about house, attend to cookery and all her domestic duties, and would take no notice of those around her, unless they stood, or placed chairs in her way. She would sometimes sing, — repeat poetry, write, and read, and even learned the game of back-gammon. She heard, felt, and saw, during her paroxysms. Her natural disposition was mild and amiable; but in the paroxysms she was commonly peevish and irritable, and used frequently to say, "she was cross, and meant to be cross." At times she answered questions that were proposed, to test her power of vision. When in health, her movements were generally slow, but in her paroxysms she moved with astonishing rapidity, and accomplished whatever she attempted with great celerity. This quickness also characterized her mental operations. She comprehended at a glance whatever was presented to her, seemingly without having bestowed a moment's attention. Her perceptions, as to the place where she was, were *generally* correct; those relative to time, generally inaccurate. She almost invariably supposed it was day. When asked to go to bed, she would say, "What, go to bed in the day-time!" She was sometimes mistaken as to place, imagining herself in Brattleborough, when in Springfield, and when in Worcester, conceiving herself in Springfield. In the early stages of her complaint she appeared to take but little notice of persons, unless they were connected with *the ideal scene passing in her mind*, and then she regarded those with her, only as the *rep-*

resentatives of the persons whom she imagined to be present.

At the termination of her paroxysms she sunk into a profound sleep. The frown disappeared from her brow, the respirations again became long and deep. Then in the course of fifteen or twenty minutes, she would open her eyes, and recollection was at once restored. *She then invariably reverted to the time and place, at which the attack commenced, and in no instance manifested any knowledge of the time which transpired during the interval.* In one paroxysm she remembered events that took place in another, though there was no remembrance of them in the interval. The physician who reported her case, says, almost every day furnished examples of this phenomenon. In the case quoted by Mr. G. Combe, in his System of Phrenology, p. 487, the facts are strikingly similar to those of the above, so far as it regards the phenomenon of memory. In this case, he says, *the circumstances which occurred during the paroxysms were completely forgotten by her, when the paroxysms were over, but were perfectly remembered during subsequent paroxysms.* In these cases, all the mental operations, which occurred during the paroxysms, were so different in *degree*, *combination*, and *manifestation*, from those of the ordinary state, that they were, to all purposes, the mental manifestations of another mind. The *higher activity* of the morbid state could avail itself of ideas common to both states; but the lower activity of the ordinary and rational state, had nothing sufficiently exalted or sufficiently like the other, to furnish any clue to the recollection of one from the exercises of the other. I have given my views of the above, as appearing to explain a great principle in rela-

tion to memory, as well as to elucidate what is sometimes called *double consciousness, divided consciousness,* or *double personality.* In the case of Jane C. Rider, there was a great difference in her feelings, her movements, her mental activity, and in the combination of organs in exercise. Some of the faculties were in the highest state of exaltation, and others in a state of torpor. The combination active, constituted her peculiar individuality or state of being. The manifestations under this state were so different in *all* respects, that nothing which happened in her ordinary states, tended in the least to suggest them. And this arises from the difference in the two mental states, and not from the actual difference in the circumstances around her. Hence she could have no remembrance of those states. A person in one place, and under one set of influences, appears to himself so different from what he does under opposite influences, that he hardly recognises his own identity, and at such times he will find it difficult to remember the things connected with former and opposite conditions.

CHAPTER XX.

JUDGMENT.

If Judgment be considered as a power of comparing the qualities and relations of individual objects, it is

simply a function of all the intellectual faculties, like perception, conception, and memory. Thus we judge of form, magnitude, color, cause, effect, resemblances, analogies, and differences of objects, by means of the functional power of the appropriate faculties. From this view of the subject, we see that judgment is not a fundamental faculty, but a mere function of all the intellectual faculties; and its power in a given case will depend on the degree of energy, which the faculty in exercise possesses. But judgment, in its more appropriate sense, has a very comprehensive signification, and an extensive bearing upon mental manifestation and character in general. While few possess this trait of character to a high degree, the great mass of the community are very deficient in it. There are very few who can so far depend upon their powers of analysis, as to investigate a complicated subject at all points, and arrive at conclusions which may be safely relied upon, as the basis of important undertakings, or the adjustment of important interests. A few master spirits of this character are to be found in every age, to shed their light upon their country and posterity. The influence of such men is felt in all situations, whether as private citizens, philosophers, counsellors, judges, or rulers. If we were asked what above every other quality characterized Washington, Franklin, and Marshall, we would say *judgment*. This enabled them to discover the truth, and to apply it with practical ability and strong common sense.

The inquiry which it now concerns us to make is, — What are the ingredients which go to make up, what we thus denominate, superior judgment?

1. It is believed that the leading intellectual organ concerned is that of *comparison.* This organ has the most enlarged functional power of all the intellectual organs. While the perceptive organs are confined to their own objects and relations, this compares things of the most opposite kinds, and looks through the whole range of nature. It can compare color to sound, or an object of sense to a feeling of the mind. It draws analogies, discovers resemblances, and detects differences. It abstracts parts or comprehends a whole. It has all the severity of truth, and all the playfulness of poetry. It enriches the poet with figures, and the mathematician with the perception of proportions. Without a good share of this faculty, no man can aspire to be a discoverer in science, or claim to possess a true philosophical mind. If alone, it does not always secure the character for sound judgment; I have never seen sound judgment where this is wanting.

2. As comparison acts upon materials furnished by the other intellectual faculties, these must be well balanced and active, or the materials thus furnished will not be well prepared. If, for instance, there be general deficiency in the perceptive organs, and as a consequence deficient power of observation, the data on which comparison must act will be deficient. So if causality be small, then the relation of cause and effect, and other innate relations recognised by this organ, will be overlooked. Therefore judgment will be incorrect in results, however justly drawn from the materials on which it has acted.

3. We have seen in another place, that when some of the feelings are strong and others feeble, the light they

throw upon the intellect will be unequal, and with it there follows an unequal and defective perception of objects. Hence the judgments, formed under the influence of some strong, and other feeble, feelings, will partake of error. The intellect should always hold a decided predominance. This is much less so than could be desired. Most of the world are more or less slaves to some strong passion. Carried to an extreme, it becomes *monomania.*

To be wanting in those feelings, which belong to a subject, is as much a source of false judgment as an over endowment of them. A juror, who has little approbativeness, will never estimate adequately the injury inflicted upon character. One who has small philoprogenitiveness, will never correctly appreciate a father's feeling, when lacerated by the seduction of a favorite daughter. There should be, indeed, a fine logic among the feelings, which, when preserved, gives almost an instinctive perception, and love of truth, in the common concerns of life. This balance is acquired and maintained by attention to the proper culture and regulation of all the faculties, and especially of *conscientiousness* and the moral sentiments generally. So that there is an intimate connexion between sound judgment, and sound principles, between a just and a judicious man. He that violates his conscientiousness darkens his intellect to the perception of truth.

5. But without cool and patient habits of investigation, the best balanced intellect and feelings will not save us from erroneous judgments. We should secure all the evidence the nature of the case admits of, and should reject all which is irrelevant to the case in question. Some persons seem to pride themselves upon a violation

of these most obvious and reasonable rules, and form judgments without apparent examination or reflection. This too often characterizes physicians, lawyers, and judges, men who of all others are most responsible to their fellow-citizens for the judgments they may form. Wit comes in flashes, poetic fancy loves the freshness and far seen, unreal resemblances of marvellousness. But judgment is cool, collected, sober, steady, hard working, and german to common sense.

The above view of our subject shows, that sound judgment depends upon the predominating activity of comparison, — a well balanced intellectual and affective organization in general, and a due degree ef information and reflection upon the subject on which a judgment is to be formed.

CHAPTER XXI.

TASTE.

The view already taken of Judgment prepares us for a correct conception of Taste, or in other words, it enables us to give a phrenological analysis of what is implied, when we say of a person that he has a good or bad taste. Taste, then, implies the exercise of *judgment* as to the effect, which any object of nature or art has upon our perceptive and affective faculties, as it regards the sublime and beautiful. In order that a person should possess good taste on any subject, the following particulars should concur.

1. Large *comparison.* This is necessary in order that we may compare the impressions made by one object with those made by another upon our feelings; and that we may see how all the particular parts and ingredients contribute towards giving an effect to the whole. Comparison being thus active, taste will be improved, as this faculty is increased in power and activity by *experience.*

2. The other intellectual faculties should also be active, that all the parts, qualities, and relations of objects, may be distinctly perceived and attended to. If form be deficient, we shall overlook any defect in the form of the object. If color be inactive, we shall not discover either the beauties or defects of coloring. If locality be wanting, we shall disregard the relations of position. If causality be deficient, we shall not readily discover the relation between certain forms, colors, and positions, their indications of significance, fitness, utility, or study the mental emotions which usually accompany them.

3. It is not only necessary to have an intellect which can perceive, but there must be a sense of the beautiful and the grand, which spring principally from ideality and reverence. Ideality seems to be excited by the perception of the harmonious combination of every part in relation to the whole. As for instance, in looking at a human countenance, we are delighted by that harmonious combination, which arises from the union of appropriate color, form, and expression, with the character, age, and condition of the person.

4. But good taste also requires that harmonious exercise of the affective faculties in general, which is consistent with the predominance of the higher sentiments; and which will also keep each feeling so far active, as to

relish only a due degree of stimulus addressed to it. With large amativeness, combativeness, destructiveness, or self-esteem, an individual will be in danger of offending against good taste, by the manifestations of these feelings too strongly and frequently. So, with a deficiency in any feelings, a person will be in danger of committing offences against taste, by a disregard of them in others, and in an over manifestation of the opposite feelings. Thus, where benevolence is deficient, the person will be blind to the beauty, which that emotion sheds over one's countenance or writings; and also he will mar the beauty of whatever he does or says, by manifestations of a preponderating selfishness. I might here add that susceptibility to the pleasures of taste, and delicacy of taste in the fine arts, will depend much upon a fine nervous and sanguine temperament.

Were we to go into an examination of the *adaptation* of the *objects of nature and art* to give exercise and pleasure to taste, it would require a volume. This, too, would be exceedingly difficult, as that which gratifies taste is often the result of the harmonious and complicated combination of parts in reference to a whole; and that whole is constructed for some purpose of utility, and adds to it the beauty of design, fitness, wisdom, and goodness. In studying the sublimity and beauty of nature, we but study the power, wisdom, and goodness of God. In studying the handy work of his creatures, we again see but imitations of him who created, at the same time that we look at the works of the creature.

Before we leave this interesting subject, we will observe that tastes will differ in different individuals, to the same extent that their judgments will be found to differ; and

differences in organization and external influences lay the foundation for these differences. There is, indeed, no universal unvarying standard of taste. Nor does its gratification depend upon any particular uniform conformation or quality of matter. It is rather dependent upon the degree, in which any formation or quality of matter gives agreeable exercise to the mental faculties.

Those whose organizations are the most unequal will be most likely to offend against taste. But the greatest offences will be committed where comparison is very deficient. If ideality be small, and the organization in other respects be equal, there may be no great offences against taste, but every thing, which comes from the hands of such persons, will be characterized by plainness and destitution of ornament.

CHAPTER XXII.

SYMPATHY.

Men, in their social state, are connected by the ties of neighbourhood, business, politics, friendship, kindred, and religious faith. In our intercourse with the world, we meet with some who are agreeable, but more who are disagreeable, and even repulsive. To the few we cling, and to the many we manifest a kindness and friendship, which springs more from interest, pacific feelings, or charity, than from fellow-feeling and congeniality.

There are attractions and repulsions in physics; among vegetables, some are said to perish in the neighbourhood of certain others; among the lower animals the same law prevails.

The question occurs, Why is this so? Let us recur to fundamental principles. It will be recollected that some of the faculties are social, and that others are anti-social. The intellectual faculties are eminently social. We like to engage in the same studies and pursuits of others around us. Hence science flourishes best in society.

The higher sentiments are social, and persons, in whom these predominate, are pleased with the society of each other, so far as these faculties are concerned. Approbativeness is selfish, yet not anti-social. A person, in whom self-esteem is large, associates agreeably with another, in whom the same feeling is small, and reverence is large; but meets the manifestations of large self-esteem in another with coldness and distance. Amativeness and adhesiveness are social, and sympathize readily. The other propensities in general are anti-social and selfish.

Taste implies the exercise of judgment upon the sublime and beautiful in nature and art, but Sympathy belongs only to our feelings towards others, not merely in reference to beauty or sublimity, but to the degree in which the faculties of the one find agreeable exercise in the society of the other. And this is so exclusively a matter of feeling, that the judgment can hardly be said to take a part in it. This discloses to us the principle on which sympathy is founded. In order that two persons shall feel sympathy or congeniality in each other's society, they shall be so constituted, that each excites in the other pleasurably the social feelings, without opposing

the dissocial and selfish. Hence there is no invariable combination on which sympathy depends. The organization of both must be fitted, — the one to that of the other.

The natural language of the feelings acts directly on those to whom it is addressed, so that the principles of repulsion and attraction are instantly known whenever two individuals meet. Thus, when we meet with a person, whose countenance expresses cordiality, kindness, and candor, (which are the natural language of adhesiveness, benevolence, and conscientiousness,) the same emotions are agreeably excited and gratified in ourselves, and we naturally return his advances with corresponding emotions. A conscientious, respectful, frank, and benevolent man, carries in his countenance a power, which calls into the expression of all he meets whatever they may possess of the same principles. It operates like a mysterious wand, to drive back the cold deformity of selfishness, and to bring to the surface heaven-born benevolence and honesty.

This power will be more readily recognised in the public speaker, than in any other person. A frank, benevolent, honest man, who loves the truth, and has the power to grasp and courage to declare it, holds a power over our sympathies and our convictions, which we have no wish to diminish.

CHAPTER XXIII.

DEFINITIONS.

One of the great objects, to be accomplished by phrenology, is to accustom the students to analyze and to reduce compounds to their simple elements; in short to induce people to *think* phrenologically. You will inquire how this is done? I answer, define all words which are descriptive of intellectual and moral states phrenologically. Below I give a few examples.

Ambition. — This is a compound feeling, arising from the great activity of approbativeness, self-esteem, and hope, and the intellect directed to things of importance.

Anger. — A violent excitement of destructiveness, inclining one to revenge.

Audacity. — The effect of large self-esteem, firmness, and courage, combined with small reverence and cautiousness.

Conscience. — This implies a combination. A person's conscience will depend upon the following particulars.

1. The activity of the sentiment of conscientiousness. If this be inactive, a person may have policy but no sense of right and wrong.

2. Conscience will depend on the modifying influences of the affective faculties in general. Predominating acquisitiveness would produce a dangerous effect upon large conscientiousness, where they could not act in harmony, and so with all the propensities.

3. A person's conscience will depend much upon the state of the intellectual faculties. When causality and comparison are small, a person may be easily deceived, as to what would be right in a given case. Hence his conscience might be agreeable to common notions of right, but contrary to absolute conscience.

4. Conscience depends much upon the general habits, education, and influences with which a person is surrounded. I should not expect the same notions of right and wrong would govern a professed petty chapman and a chancellor. There is among men of different secular pursuits a sort of conventional conscience, made up of a class of questionable maxims, and tolerated by the mysteries of every trade, which is somewhere defined as a coarse-bred, vulgar honesty, but which will be found to partake more of the morality of the propensities than of the sentiments.

Constancy. — This will be likely to characterize one who has large firmness, conscientiousness, and comparison, with no other faculties remarkably strong.

Contempt. — A disagreeable affection of self-esteem, produced by a real or supposed insult from an inferior, or from various other causes.

Cruelty. — A manifestation of the abuse of destructiveness.

Despair. — A state of feelings produced by large cautiousness and reverence, with small hope and self-esteem, acting with a highly bilious temperament and unfavorable external circumstances.

Diffidence. — An effect of large cautiousness and reverence, with small self-esteem. There is a sort of diffidence experienced by those who have large self-esteem,

when they are in situations where they cannot appear to advantage.

Doubt. — The effect of large opposing affective faculties, as hope and cautiousness large, acting upon a more active causality than comparison.

Duty. — The sense of obligation which proceeds from the decisions of conscience.

Grief. — A state of dissatisfaction of any fundamental faculty.

Happiness. — Consists in the exercise and satisfaction of the fundamental faculties, acting in harmony with each other. Our happiness is made up of the sum of the harmonious satisfaction of the faculties. This will differ at different times, and one enjoys much more than another. Happiness therefore is only comparative.

Haughtiness. — A manifestation of self-esteem in an undue degree, with moderate reverence.

Honor. — A feeling based on love of approbation and self-esteem, but not on conscientiousness. We must be careful to distinguish between honor and honesty.

Horror. — A strong feeling produced by a disagreeable affection of the higher sentiments in general, in consequence of the contemplation of something revolting to the senses.

Indifference. — Small activity of the affective faculties in general.

Indignation. — A disagreeable affection of approbativeness, self-esteem, and conscientiousness, with active combativeness and detructiveness.

Joy. — An agreeable affection of the fundamental faculties.

Melancholy. — A disagreeable affection of the feelings in general, with great activity of cautiousness, and with little activity of hope.

Modesty. — A finely balanced state of all the affective faculties, except self-esteem and reverence, the latter of which being more active than the former.

Pretension. — Great activity of self-esteem and love of approbation, with deficient intellect and resources to enable performance.

Regret. — A disagreeable affection of any of the faculties, except conscientiousness, in view of past miscarriage and lost advantages.

Remorse. — A disagreeable affection of conscientiousness in consequence of a violation of conscience.

Shame. — A disagreeable affection of love of approbation, self-esteem, and conscientiousness.

Sublime. — An emotion of ideality, reverence, and cautiousness, upon a perception of what manifests effectively the qualities of greatness, power, and wisdom combined, whether in nature or art.

Ill-temper. — Ill-temper is a want of that due mixture which characterizes good temper, being the result of the frequent preponderating activity of destructiveness and combativeness over the higher sentiments and reflection; these being large notwithstanding. When connected with a high sanguine and nervous temperament, it constitutes the distinguishing characteristic of the warm-hearted, or warm-tempered person. Such persons sometimes become exceedingly troublesome to those whom they do not fear or respect, and can exercise their power over. A servant left a *warm-hearted* master on account of his temper. He was advised by a friend to return,

saying to him, your master's temper is no sooner on than it is off. This he granted, but replied it was no sooner off than it was *on*.

Temptation. — The feeling experienced by the activity of any faculty, excited to act in a manner not sanctioned by conscience.

Temper. — Temper, or, as it is sometimes called, *good-temper* or amiability, means such a due mixture of destructiveness and combativeness with the antagonist principles of benevolence, reverence, conscientiousness, cautiousness, self-respect, and reflective faculties, as to secure to the latter at all times a due ascendency.

Virtue. — A state, in which all the propensities are habitually in subordination to the enlightened and regulated activity of the higher sentiments and intellect.

Wisdom. — To be *wise* requires an enlightened intellect, combined with the harmonious and well regulated influence of all the affective faculties, and acting by the dictates of strong judgment, in view of adequate information.

CHAPTER XXIV.

ON THE QUALIFICATIONS NECESSARY TO THE PRACTICAL APPLICATION OF THE PRINCIPLES OF PHRENOLOGY.

The views presented to the reader in the preceding pages are such, as the writer believes will be verified by an appeal to facts. They either result from his own observations, or the observations of others, in whose state-

ments he has the fullest confidence. That the reader may test them for himself, and also gather new truths for his own benefit and the benefit of science, it is the sincere desire of the writer that he may resort to the same fountain. The degree of conviction arising from our own observations is far more satisfactory, than second hand relations of facts by others. We can repeat them under every variety of circumstances, and become satisfied that there has been no carelessness, and no attempt at deception. My object, in the subsequent part of this work, is to furnish such assistance as I may be able to do to the student of Phrenology, that he may go abroad fresh on the field of observation, and gather knowledge accurately for himself.

Were I ever so much disposed, I could not present those interesting facts, which constantly fall under the eye of an observer. Delicacy to individuals renders it improper. But when a person becomes acquainted with principles, and has acquired some little practice in observation, facts will flow in upon him constantly. But before one goes about this process of observation, he should be possessed of such rules, as have been suggested by the good sense and experience of others. To the student of Phrenology I would respectfully say, therefore, that

1st. You ought to know your own powers of observation. If your perceptive organs are small, you will find it very difficult to collect facts with accuracy. You will not readily observe the different forms and sizes of heads, the locations of the organs, &c. If this be the case, you will be surprised often, that others make discoveries which escape your observation. Nevertheless, I would encourage you to persevere, and rather to regret your

own deficiencies, than deny the existence of facts which others observe, but which escape your notice. The practice of observation will be of great use, as a mental discipline, and the organs will soon acquire sufficient strength to perform the functions required of them.

If you have large perceptive and small reflective faculties, you will find it comparatively easy to get facts, but will have great difficulty in arranging them and referring them to general principles. Appearances will be noticed, but inferences will not be drawn from them readily and correctly. Persons thus constituted are exceedingly troubled to comprehend the doctrine of combinations. They are too ready to infer distinct traits of character from each separate organ, and when they do not at once discover the simple, direct, and clear manifestation of the principle, they conclude that the phrenological doctrines cannot be true. Dr. A. Combe remarks, that "facts alone are not sufficient; and unless they be collated, and their relations to each other and general laws be deduced by a careful induction, they lose the greater part of their value, and become little better, than the undigested erudition of an almanack-maker, and afford no means of judging of the truth or falsehood of a principle or rule of practice." Facts require constantly to be referred to principles. But principles again should only assist us to study each particular case, and not lead us to disregard qualifications, limitations, and peculiarities.

"To observe accurately," says the last quoted author, "requires a degree of intelligence and acuteness, a freedom from prejudice, and a patience of investigation, which can be found united only in a mind constantly

alive to the influence of general laws, and ardent in the pursuit of every difficulty and of every anomaly to their origin, in some previously unperceived condition, affecting the production of the expected result. So that if we take it for granted that he, who confines himself to simple observation, will be the most successful in the collection of trustworthy facts, and in the discovery of important natural truths, we shall infallibly fall into error. So prone, in fact, is the human mind to go back to principles, that scarcely any thing can be perceived without some relation to general laws, or to some other better known phenomenon suggesting itself; and in this way the simplest narrative of a case almost always involves some theories; and our modes of observation being thus insensibly affected by our *previous views*, it becomes a point of primary consequence that these should be correct."

From these remarks we may see that careless thinkers, who have no supreme regard for truth, and no careful habits of observation, but with a mass of general undefined and incorrect principles floating in their minds, are unfitted to come into the field of phrenological observation. They will neither understand what phrenologists have written, nor collect facts correctly for themselves. Nothing short of an entire revolution in their mental habits will serve to enable them to gather and apply the truths of mental science. To a mind, either incapable of deducing principles from analysis of facts, or careless in applying deductions made upon one state of facts to another, where the circumstances are not substantially similar, experience is useless and instruction unavailing.

To succeed in gathering facts in support of phrenology requires an amount of mental power, equal at least to that which is necessary to success in one of the learned professions, a supreme regard for truth, and a mind so nearly balanced, as that there shall be no striking deficiency in either the perceptive or reflective powers. If beyond this one be highly gifted with both large reflective and perceptive organs, and have habits of observation upon character, and a general intelligence, he is fitted to commence the study with singular advantage to himself.

It is not to be expected that men who have no taste for science, and no liberality of views, will give themselves to this great study. They must do in this branch of science as in others, — rely upon professional advisers for what little they may ever profit from it.

Phrenology divides itself as naturally, as does the science of medicine, into two parts, viz. theory and practice. To these we add a third, viz. its application. It is comparatively easy to read all that systems contain on the subject, and thence to write upon the subject with tolerable accuracy. Those, who may be indisposed to take even *this* trouble, may hear read interesting lectures on the subject.

But to read with care and thought, and to so understand as to apply the subject, is quite another affair. This reading must be connected with the practical application *as* you read. I will give the views of a writer in the Edinburgh Phrenological Journal on this point. Vol. 8, p. 374.

" To constitute an intelligent and trustworthy practical Phrenologist, a long course of study and observation, as well as a natural capability of profiting by these, is indispensably requisite. He must have an intimate ac-

quaintance with the cerebral developments of numerous individuals, and ample opportunity of observing the dispositions and talents connected with each; — he must be able to recognise with facility the degrees of development of the various organs, and also the temperament of the subject before him; — he must know accurately the functions of each organ, both individually and in combination with others; — his stock of general information must be respectable, that he may understand the nature of the sciences and occupations to the pursuit of which the different faculties prompt; — and he must render himself familiar with human nature in its various phases, by mixing extensively with men of different ranks and employments, and by a careful study of biography. Finally, such a degree of reflective power, as gives perception of motives, is necessary to the observer; for it is a fact, revealed by phrenology, that persons, in whom the reflective faculties are weak, do not clearly perceive causation either in morals or in physics."

The true method of studying Phrenology.

Without observation connected with reading, no one will correctly understand what has been written, and without reading in connexion with observation, many facts will pass unobserved. *Hence the true method of studying Phrenology is that of the simultaneous reading, observation, and reflection.* And taking it for granted that the adequate mental powers are possessed by the individual, we will endeavour to make some remarks to assist his observations, while imbuing his mind with the principles of the science. No one can accurately understand the great principles of the science, and be master

of its profound philosophy, let him read all that ever has been written, unless he shall unite with his reading habits of observation. And no one can deserve a high reputation, as a correct and skilful practical phrenologist, until a knowledge of the philosophy of the science has been mastered. Without this practical knowledge, a man may be learned in other men's thoughts, and may improve and adorn them, and appear before the world as author, editor, or lecturer, to great advantage, but it does not follow that his knowledge stands the same chance for accuracy, as if collected at *first hand*, or that those, who have observed more and written less, are not conversant with the *philosophy* of the science.

CHAPTER XXV.

HOW PROOF OF THE SCIENCE IS TO BE OBTAINED.

A DISTINCTION is to be made between the observation of facts, and the bringing before the public those facts in *proof* of the science.

As to what facts may be brought before the public, Mr. George Combe has made the following correct remarks. "Delicacy to individuals stands opposed to a *public statement* of many interesting cases in favor of the doctrines. It is on this account that phrenologists eagerly solicit those, who wish to ascertain the truth of the system, to examine nature for their own satisfaction.

"Busts are sold which indicate the situations of the organs, and books which describe the functions, and no

one can have any difficulty in finding proper subjects among individuals in his own circle, with whose talents and dispositions he is intimately acquainted." Mr. Combe then gives his reasons for the above. "The degree of conviction resulting from observation, when repeated on a great variety of individuals, and in every diversity of circumstances, far surpasses that which can be produced by perusal of the most minute and authentic details of cases observed by others. By contemplating phenomena as they actually exist, the mind forms a judgment concerning the real nature of their relation to each other, with a higher degree of satisfaction, than can be attained by merely reading descriptions of their appearance, and of the order in which they occurred. In the former case the inquirer satisfies himself by an examination of *all* the circumstances which he deems of importance, in the latter he is apt to doubt that some material fact may have been overlooked, which, if stated, would alter the whole import of the experiment. By selecting for observation persons intimately known to himself, the inquirer will enjoy the means of estimating the real nature and extent of the talents and dispositions possessed, — the actual appearance of the head, — the effects of health, education, and of a variety of circumstances, which he might imagine were not attended to in investigations conducted by others." He appeals to his own experience by observing, "I have been permitted to examine the heads of several hundred persons, in different ranks of life, many of whom are well known by their talents as authors, preachers, public speakers, artists, &c." This was written more than ten years since, and he has continued to practise ever since; so that now thousands might be sub-

stituted with propriety for hundreds. And to this course is he greatly indebted for his preëminent standing, as a practical phrenologist as well as philosopher.

I am the more explicit in presenting the opinions of Mr. Combe on this subject, on account of a rule promulgated in the Annals of Phrenology, in an article written by the Editor. It is this, *Examine no heads of living individuals of respectable standing. Then he makes an exception of examinations of well marked heads, whenever it is evident that the science may be promoted by reporting them, whether in favor of, or adverse to it.* This would imply that the heads must be known to be *well marked* before they are examined! And that science will be promoted by *reporting* them, whether in favor of or adverse to it! This renders the reporting of cases co-extensive with examinations! Mr. Combe seems to be of an opinion, that there would be a manifest impropriety in reporting any considerable portion of the cases, which would furnish strong proof in favor of the science. But I am disposed to attribute the peculiarity of the Editor's opinions purely to his great desire for the promotion of the science.

Without limiting examinations, Mr. Combe limits very properly what cases may be publicly reported, in the following remarks.

"The same restraints, however, do not oppose the publication of all cases bearing on the truth of Phrenology. When individuals have rendered themselves conspicuous by their virtues or vices, by their talents or deficiences of understanding, and when casts of their heads have, by their own consent, been placed in the hands of the public, or been properly acquired, there

appears to be no impropriety in discussing openly the correspondence, or discrepancy betwixt cerebral development, and the known manifestations of their minds. Again, where individuals have perished on the scaffold, and authentic casts of their heads or sculls have been taken, there can be no impropriety in discussing in the freest manner, the correspondence betwixt their mental manifestations and the development of their brains. It is, however, impracticable in any moderate bounds to bring forward the *whole*, or even any great portion of the facts, which are familiarly known to those who make phrenology an object of serious study."

CHAPTER XXVI.

EXAMINATION OF HEADS BY PROFESSED PHRENOLOGISTS.

If learners may with propriety go directly to the facts as they exist in nature, where their acquaintance with the character of the individual will enable them to see the correspondence between development and mental manifestations, there can be no impropriety in availing themselves of the experience of skilful practical phrenologists, in pointing their attention to the organs, and in explaining their bearing upon the characters. A higher motive, than mere curiosity, may induce a person to avail himself of the services of a practical phrenologist, in whom he may repose confidence in an examination of his own organology, temperament, &c. By so doing he may receive immediate proof of some of the leading truths

of phrenology. He may also be assisted in the great study of self-acquaintance, — and learn how to prosecute effectually the study of the science, which unfolds to him the laws of his own physical, moral, and intellectual nature.*

If a phrenologist of established reputation consent to give one, two, or more gentlemen a lecture at his own rooms, devoting time and labor, and connecting with such lecture a practical application to their own developments and character, I know of no reasonable ground of complaint. Instead of this, I think the cause of science promoted by it. So if gentlemen have children, whom they are about to educate or advise, in the selection of a profession, I know of no harm in calling professionally upon a Phrenologist. Mr. Deville, of London, has examined heads in this way for years. Formerly, he received nothing for his services; now he charges, I am told, a reasonable compensation. This saves him from importunity of those, who have but a mere idle curiosity to gratify, and enables him to attend to those, who would be benefited by the examination, without a sacrifice of his time and services.

---

* Nothing is here said intending to justify practices, said to be adopted by some, by which this noble science is made instrumental to a system of *legerdemain*. There are men in all professions, who are regardless of their own character and public sentiment. Their career will be short. An enlightened community must apply the corrective.

CHAPTER XXVII.

FURTHER REMARKS UPON EXAMINATIONS.

As some difference of opinion seems to exist among phrenologists in this country, as to the course which should be pursued in the practical applications of the science, by what the editor of the Annals terms examination of heads, I think it desirable, if possible, to present the subject in its proper lights.

In this place it is unnecessary to say that the business of travelling from place to place, opening shops, and examining heads, unconnected with public or private lectures, can neither be approved by high-minded phrenologists or an enlightened public; and will therefore soon be put down by public sentiment. But I cannot agree with the editor of the Annals, that "the most prevailing evil of the times is the practice of examining heads."

Not an advance will ever be made in perfecting this new science, except it be by those who, like its founders, read its doctrines directly in the book of nature. Stop a resort to facts, as the ultimate standard, and you encourage those who prefer the retirement of study to the pains-taking labor of observation, and metaphysical mysteries to careful induction. Then we shall fall back into the slough of hypothesis, and there will be as many systems of phrenology, as there are now of mental philosophy, and the ultimate argument will be an appeal to great names, rather than to unvarying experiment.

Among those who would learn by observation, as well as by reading, we must expect to witness more or less of

pretension, quackery, and misguided, but well meaning, enthusiasm. But in attempting to correct these, we should be extremely careful not to shut out the true method both of study, and of improving the science. Every good thing, which finds its way in the world, has to encounter the irregularity of human passions. There may be lecturers unqualified for their vocation. Lecturers, too, may sometimes appear to think too much of engrossing all attention at the expense of others. Publishers may occasionally, in their zeal for the *dignity* of the science, be thought to fix a price upon the standard works in the science, which keeps them beyond the reach of the intelligent reader of moderate means. But every science must make its way against embarrassments of this kind, and we have this consolation, that, while some injury is done, a great advance is really made by the exertions of those, who are not free from the common infirmities of human nature.

Phrenologists will be very careful how far they bow to mere authority in relation to the doctrines of their science. But they may quote with propriety the opinions of distinguished phrenologists upon the best modes of pursuing the study of the science. We cannot doubt the opinion of Dr. Gall, when he is known to have given his life to the direct study of nature by observation. Persons were frequently brought to him as strangers for examination, — sculls were handed him in the midst of his lectures, on which he ventured his opinions; and he suffered his skill to be tested in every form.

Dr. Spurzheim was not less bold in his course; on one occasion he even risked his skill upon the brain of a person wholly unknown to him before an audience. Mr.

George Combe has been from the first a most indefatigable examiner of heads. His boast is, that he has read his doctrines directly in the page of nature, and that what he asserts in point of fact, he has seen, and what he maintains in argument, he has found confirmed by experience. It is stated by the editor of the Edinburgh Phrenological Journal, (that storehouse of facts and principles,) that every one, who studies phrenology, should make observations for himself, and that he has found by experience, that it is the *only* means of studying it effectually.

But it will be said that no objection is made to examinations, only that living individuals of respectable standing should not be subjects of such examinations, unless they may have such well marked heads, as, if reported, they would promote the science. This is said by the editor of the Annals to have been Dr. Spurzheim's rule, and that *he spoke frequently on the subject.* This could not have been his rule of action for *all places*, for we know his life and writings contradict it. It could not have been a rule for *others*, because, had it been, he would have somewhere given it in his valuable works. But instead of this he gives very minute directions for the assistance of those who would study the science, and is entirely silent as to any limitation.

The truth was, that reasons obvious to all induced Dr. Spurzheim, while in this country, to decline *all* requests to make examinations. But it is obvious enough that this was a course adopted while here, on account of the peculiarity of his situation. He had but recently arrived in the country. It was his object to study the effect of our free institutions upon the national character,

before he should venture to give *opinions* of individuals from organization. And he very carefully studied the character and organization of our people, so far as he could do it unobserved. I can conceive *many* reasons which might operate with him, one of which would be quite conclusive. He had no time to devote in this way, it being wholly taken up with travelling, attending upon calls, preparing for lecturing, and in attending upon some of his works, which were in a course of publication. But these reasons do not apply to those who wish to make phrenology a study. They need no limitation to their examinations, but those dictated by rules of politeness, and the suggestions of self-respect. Caution should limit the *remarks* which they should make *upon* such examinations. The heads of criminals, and of well marked distinguished individuals, may be very well calculated for illustration; and casts of such are the only ones of which a public lecturer has a right to make free use. But the substantial proof on which the science rests is to be found in the study of nature every where. Dr. Spurzheim did not ask his hearers to take his *illustrations* as proofs, but directed them to go out into the world and examine for themselves.

But should examinations be limited by the rule in the Annals, the student must be cramped in his researches, and the cases he would examine would furnish more exercise to wonder, than to his powers of discrimination. It would be like studying the geography of a country by looking only at its curiosities. The great mass of the community, where the force of external circumstances has been so uniform, as to be readily seen and appreciated, furnish the field of observation to the student of Phrenology.

CHAPTER XXVIII.

LECTURES ON PHRENOLOGY.

THOSE lectures, which the demands of the community seem to require on the science of Phrenology, are of three kinds.

1. *Popular lectures*, or lectures intended for large, mixed audiences, which are designed particularly to amuse as well as instruct. Such lectures have been extensively given before Lyceums and other literary societies, and before large audiences in our cities and large towns. Their effect is to introduce the subject favorably to the community, excite attention to it, and furnish an agreeable occupation to winter evenings, and a topic of instructive and amusing conversation in the social circle. I know of no science which, when embellished by the fascinating elocution of an accomplished lecturer, can exceed it in interest. In lectures of this kind it should be entirely optional with the lecturer, whether he attempts a practical application of the science. In this he will consult the peculiarity of his own genius and the extent of his practical skill.

2. There is another kind of public lectures which are given to more select and less numerous classes, composed principally of such as have a serious purpose of becoming versed in the science. Classes of this kind may be presumed to have read more or less standard works on the subject; and they seek the instructions of the living teacher, to assist them on those points where the books, with the best illustrations, fail to convey clear knowl-

edge. It is expected that such classes will connect their lectures with observations, and gather proof for themselves. They will not be satisfied short of a "series of unvarying facts, such as every one meets with, who sets himself duly and earnestly to make observations on natural objects." The teacher should go with the student directly to the specimens of nature around him. He should direct the inexperienced student's observation, though it should happen to show what the experienced phrenologist can do.

But, in these courses even, it is not expected that all will become interested so far as to wish to make themselves thoroughly acquainted with the subject. The discrimination therefore will be best made, if the lecturer have a convenient room, at which individuals may call for the purpose of more practical and conversational lectures, connected with examinations.

Where individuals of marked temperament and character, whose years and standing shield them from prejudice, and excite respect by their appearance, can be found, the lecturer may allow his friends to invite them to occupy a situation in the lecture room, which shall allow him to point out some of the peculiarities of their organization and character. This is better than a prepared bust of the same individuals would be, because temperament and modifying circumstances can be fully seen. Such examinations should be deferred till late in the course, and then should be confined principally to the sentiments and intellect. These are never to be considered as full reports upon character. And the lecturer should then exercise great caution both in his judgments, and in relation to the feelings of the individual, who may

thus be benevolently disposed to lend himself for the good of science. I will not conclude my remarks on this subject, without saying that I consider the proceeding as liable to great abuse in the hands of the unskilled and incautious.

3. The third class of lectures are what may be termed practical. They are intended expressly for those who intend to become thorough practical phrenologists; they are given to a class of not more than twelve or fifteen, who are already acquainted with the general principles of the science. Such lectures were occasionally given by Dr. Spurzheim in London, and have been given in a few instances in this country. They are devoted expressly to the practical part, and in connexion with examinations. Such classes should be formed by gentlemen who have the most entire confidence in each other, and whose prudence and good sense is a sufficient guarantee, that no improper use may be made of the remarks made by the lecturer upon the subjects of the lectures.

CHAPTER XXIX.

DIRECTIONS FOR OBSERVING TEMPERAMENTS.

In this part of the work free use will be made of such cuts as will appear best to serve my purpose of illustration. But I feel forcibly the remark of Dr. Spurzheim, that "to study nature by means of figures and artificial representations, is less certain and less agreeable than to

observe her in herself. Yet the information conveyed by delineations of forms is more ample and more accurate, than can be communicated by mere description. Hence those, who would become phrenologists, derive far the greatest advantage from a course of practical lectures, although the same number of forms be not there shown as are, or may be, mentioned in books. The reason of this is, that notions of size and form can scarcely be acquired from any description, whilst they are gained at once by means of the *touch* and *sight*. Moreover, reading does not excite the same attention as demonstration. * * * Let those, therefore, who would see with their own eyes, observe individuals distinguished by peculiarity of character or greatness of talents, and examine the size and configuration of the concomitant heads, and they will find that nature is not influenced by false and subtile argumentations."

In the application of Phrenology, the *first* consideration to be taken into view is that of *Temperament*.

Remarks on the several temperaments are made at page 144, where the subject is examined at some length. In the characters which will be given, the different temperaments will be designated. In judging of the different temperaments, we must be careful not to fall into error from any temporary appearance arising from illness, exhaustion, or excitement. We should look for habitual appearances, if we would rightly interpret character. A person of a lymphatic temperament, when flushed with wine and excited by conversation, may appear like one of the sanguine and lymphatic temperament combined. A person just recovering from protracted sickness may indicate the predominance of the nervous temperament,

when he has been all his life characterized for the sanguine and nervous. These different appearances should be carefully investigated, and judgments formed accordingly. The three regions of the head, thorax, and abdomen, should be particularly regarded in connexion with the complexion, color, and fineness of the hair, and outline of the features.

Females are usually of the nervous and lymphatic temperament. "The female form," says Dr. Spurzheim, "is generally smaller and more delicate than the male; the extremities are shorter and proportionably more slender, the projection of the bones less marked, the neck apparently longer, the larynx less prominent, the chest shorter but more expanded, the abdomen larger, and the pelvis relatively more capacious in the female than in the male." These differences are quite sufficient to enable an experienced eye to detect the female form in male attire, or *vice versa.* Where the sanguine and nervous temperament characterize the female, the form will be found to approach that of the other sex.

CHAPTER XXX.

HOW JUDGMENTS ARE TO BE FORMED ON THE QUALITY OF THE BRAIN.

THE *Quality* of the brain is next to be taken into consideration, and of this judgment must be formed by physiological appearances, which also indicate tempera-

ment. It is, however, a different consideration. I can conceive of a coarse texture of skin, muscle, bone, nerve, and brain, connected with either the sanguine, lymphatic, bilious, or nervous temperament; or any combination of temperaments. What effect this has upon mental manifestation is not fully known. It is supposed, however, that a fine quality of brain is better suited to the manifestation of the fine feelings, and delicate poetical thought. The quality of the female brain is generally finer than that of the male; and this is supposed to be one reason why females are more delicate in their feelings and sentiments. The quality of food, to which a person should be accustomed for a long course of years, would, doubtless, have an effect upon the quality of the brain, and upon that of the whole system. It has been remarked, that the brain of Sir Walter Scott and of Byron were of a fine quality. The remarks of phrenologists on this subject require to be matured by further observations. At present I should not take the quality of the brain into view in judgments of character, except in extraordinary cases.

CHAPTER XXXI.

ON THE OBSERVATION OF THE SIZE OF THE HEAD IN REFERENCE TO MENTAL POWER.

In taking into view the size of the head, it should be regarded, 1. In reference to the size of the whole person. 2. In reference to heads in general. I have re-

marked, page 33, that if the brain be too large for the whole body, it would indicate deranged proportion, and consequent general weakness. This remark is not made in reference to temperament, but simply in reference to *size as a criterion of power*. When a formal judgment is to be made of the degree of mental power an individual may possess, as compared with others, size of head is not to be the criterion, unless it be a size which bears the best proportion to the whole system. This being taken as one of the conditions, and two individuals being in all respects similar in formation, but different in size, the larger will manifest more power than the smaller. Hence in judging of character, the size of the head becomes an important consideration. This seems to be a favorite doctrine with Mr. George Combe, and with the above slight modification I am fully aware of its importance, and will therefore state it in his own words. "As size *cæteris paribus* is a measure of power, the first object ought to be to distinguish the size of the brain generally, so as to judge whether it be large enough to admit of manifestations of ordinary vigor." It seldom happens, that we see heads so small as to cause from this source alone much mental imbecility. But the head is sometimes so small, that the organs become insufficient for the manifestation of intellect. Below (Fig. VIII.) is the measurement of a head of average size contrasted with the head of an idiot twenty years of age.

FIGURE VIII. — HEAD OF AN IDIOT.

Measurement.		Idiot.	Aver. size.
From Individuality	to Philoprogenitiveness,	$6\frac{1}{8}$	$7\frac{1}{2}$
Ear	to Individuality,	$4\frac{3}{8}$	5
Do.	to Philoprogenitiveness,	$3\frac{3}{8}$	$4\frac{3}{4}$
Do.	to Firmness,	$4\frac{1}{2}$	6
Destructiveness	to Destructiveness,	$4\frac{3}{4}$	$5\frac{3}{4}$
Cautiousness	to Cautiousness,	$3\frac{1}{4}$	$5\frac{3}{4}$

As the idiot head, presented before us in the drawing, belongs to a person of nearly ordinary size, and who has always enjoyed health, no cause can be assigned for his idiocy but the extreme smallness of his head. An account of his imbecility is contained in the Edinburgh Phrenological Journal, which is but the common history of idiocy. He cannot dress himself, — eats without ever being satisfied, — is fond of drink, — does not know the difference between a penny and half-penny, &c. The parents of this boy were cousins, — an evidence that marriage of near relations is a breach of natural law.

Size is to be taken into view in fixing the grade of mental energy, which is to be awarded to the individual, as whether he be a man of small, average, or great power. This, however, must not be a sole criterion.

Other circumstances must also be regarded. Mr. G. Combe remarks, that no instance has occurred of an individual, who, with a small brain, has manifested clearly and unequivocally great force of character, animal, moral, and intellectual, such as belonged to Bruce, Bonaparte, or Fox. Here Mr. Combe should not be misunderstood. Power of intellect alone is not referred to, but mental character generally, including propensities, sentiments, and intellect. Heads of no more than ordinary absolute size, sometimes belong to persons of great intellectual power. But such persons do not at the same time manifest great energy in the propensities. The head of the late Chief Justice Marshall, was not absolutely of the very largest size, though in fine proportion to his body. But the intellectual region and that of the higher sentiments were large, and the whole finely balanced. His writings and speeches all indicate great power of intellect and of the higher sentiments, but none of the fierceness of strong propensities.

Again, remarks upon size should be made in comparing educated men with each other, and uneducated men with each other. For an uneducated man, who has always exercised his hands in manual labor, to the neglect of his brain, although that brain be large, will not compare with a man of a smaller brain, who has always exercised it by study and thought under strong excitement; because exercise improves the functional power of the brain, as it does of the eye, arm, or hand. Education tends to increase the energy of the organs, and large organs will permit more increase of energy from education than small ones.

Differences in size may be easily determined by a visit

to a hatter's shop, or by observing the heads in any public assembly.

In an article in the Edinburgh Phrenological Journal, the following interesting remarks are made on this subject, applied to members of the learned professions. "Many members of learned professions display great felicity of illustration and fluency of elocution, surprising us with the quickness of their parts, who nevertheless are felt to be neither impressive nor profound. They possess intellect without passion, and ingenuity without comprehensiveness and depth of understanding. There are other public speakers again, who open heavily in debate, their faculties acting slowly but deeply, like the first heave of a mountain-wave. Their words fall like minute guns upon the ear, and to the superficial they appear about to terminate ere they have begun their efforts. But even their first accent is one of power; it arouses and arrests attention; their very pauses are expressive, and indicate gathering energy to be embodied in the sentence that is to come. When fairly animated, they are impetuous as the torrent, brilliant as the lightning's beam, and overwhelm and take possession of feebler minds by impressing them irresistibly with a feeling of gigantic power."

How perfectly the above describes the eloquence of a distinguished senator in Congress from New England. And of him it may be said truly, that, in addition to all the accumulated energy arising from extreme mental labor, his head is of the very largest size, and very fully developed in all the regions.

I think that certain combinations are particularly favorable to these results, aside from mere size. Large self-

esteem, firmness, and reflective organs, form a combination which gives a strong impression of power. This will convey deep thought, and it will be communicated in the natural language of self-esteem, which gives a strong impression of self, and attaches a peculiar importance to every word uttered.

CHAPTER XXXII.

DIFFERENCES IN GENERAL FORMATION OF HEADS NOTICED.

1. *General remarks upon children and females, as compared with adults and males.*

Those, who commence making observations upon the peculiarities in the forms of heads, will soon remark that the heads of children and of females are more elongated backward from the ear than the heads of men. Our observations will be facilitated by running a vertical line from the ear to the top of the head in a few instances. We shall then observe that the amount of brain, contained in that portion back of the ear, is larger in proportion to the whole head in children and females, than in men.

Among children the heads of girls will be more elongated back of this line than those of boys.

The ear is selected as the starting point, because a line drawn from the orifice of one ear to that of the other would pass near the centre of the medulla oblongata, the distance from which to the surface determines the length of all the organs.

From these more obvious observations, it will be easy to notice the relative proportion of the frontal and occipital regions in the heads of individuals generally. A large amount of brain back of the ear, compared with that in front, will indicate the energy of the organs located in that region. Amativeness excepted, this is the seat of the peculiarly domestic feelings, which are known to be more energetic in females and in children, than in males. The superior elevation of female heads at the organs of the moral sentiments, and the general thinness of the heads at the lower side organs, secures the predominance of the higher sentiments more than of intellect.

2. *Heads of precocious children.*

General form and size in the heads of children is a point of great importance to be attended to, in forming judgments upon their character and the adaptation of their education.

It is not uncommon to see children with heads greatly out of proportion to the body. The elements of precocity are largeness and great activity of brain, the latter often degenerating into morbid excitement; and the temperament is generally highly nervous. There will also be a large development of the several regions of the head, and a small, spare face and slender body. I have seen a child in the State of Maine not yet seven years of age, whose head is as large as that of an adult. He often manifests the depth of reflection, which would belong to an adult of reflective habits. He has a great taste in music, and although he has never been allowed to learn to read, he has committed many small books to

memory, merely from hearing them read. Indeed a volume might be written detailing evidence of great precocity. A precocious head may soon be noticed. Precocity is disease, and precocious children should be treated as patients.

Such children seldom live; and they are considered as too good and too wise to remain long on earth. If, however, parents, instead of indulging their feelings by encouraging precocity, would pay particular attention to the general growth of such children, and take special care that there mental faculties be exercised but moderately, many more might be saved and become healthy, and of great mental power, with nearly a corresponding physical energy. The heads of such children are much developed in the frontal region, and are exceptions to the general rule.

3. *Methods of ascertaining the size of the different lobes.*

We have remarked in another place, that the brain is divided into three lobes. (See p. 27.) Observations made upon the exterior of the head are for the purpose of ascertaining the size of the different parts of the brain. The method proposed by Dr. Spurzheim is to view the head profile-wise, and make an imaginary line, vertical from the orifice of the ear to the point in the middle of the upper part of the head, which corresponds with the union of the frontal and sagittal sutures.* This line thus drawn will give a tolerably correct idea of the elongation of the frontal and sincipital regions; but furnishes no data for determining how much of the brain is

---

* See Fig. IX.

devoted to the middle lobe, and where the frontal lobe commences.

The inexperienced, whose organs of form and size are not active, will be assisted by measurements with callipers. These will enable one to get the distance from the orifice of the ear to any point in the mesial line. Experienced Phrenologists often take these measures for the purpose of recording the size of the head as nearly as possible. This work will contain the measurements of several heads thus taken. But it is better that the appropriate faculties be educated to this work by experience. Mr. G. Combe's method is to ascertain the size of the different lobes. The size of the anterior lobe in the living head, he says, is indicated by the portion lying before constructiveness and benevolence. But this is like bounding a large section of country by reference to obscure town lines, which have not yet been explained.

There is a difficulty attending any mode of indication, and, after all that can be said, sound judgment must be used. The organs of the frontal lobe come to the surface within what is understood as the forehead. But the hair in some grows down over the upper part of the reflective organs, while in others the head is bare back of these. This, therefore, is not an infallible guide. The frontal lobe, as it occupies the surface of the brain, lies, nearly all, over the sockets of the eye. Hence the depth of the frontal lobe will best be observed by noticing how much would be forward of the line drawn vertically from the external angle of the eye. This will not take in all the frontal lobe. But it will indicate the different degrees of depth in the frontal lobes. If the angle of the eye be far back, and a large mass of brain seem to lie

over the arch, it indicates that the frontal lobe is large, especially when the head is also much elongated from the ear forward.* An experienced Phrenologist, who easily detects the boundary line of constructiveness and benevolence, will be assisted in first ascertaining them. The *peripheral expansion* must be determined by a *front* view, and may be ascertained with sufficient accuracy by the eye.

It is not important to fix very distinctly the precise vertical line between the middle and *posterior* lobes, as the base of both is occupied with the propensities. And an imaginary line drawn either from the mastoid process, or the orifice of the ear vertically, will enable one to judge of the mass of brain in the back region, so far as it can be determined by observations made from a profile view. But a *back* view also is necessary to be taken, in order to determine the peripheral expansion of the posterior lobe.

The size of the middle lobe should be ascertained by noticing the breadth of head in the middle region, and the elevation of the head above the ear. There is usually an angle at a point nearly equi-distant from the mesial line and the orifice of the ear, which is at the middle of the parietal bone, and at the centre of the organ of cautiousness. The amount of brain above this point indicates the size of the organs of those sentiments, which are over the middle lobe, and the amount of brain below indicates the size of the organs of the propensities. When the head is very little developed above cautiousness, the character is likely to be under the dominion of the propensities.

---

* See head of Marshall.

CHAPTER XXXIII.

CLASSIFICATION OF HEADS.

The above remarks lay the foundation for a classification of heads. Those, who have much the larger amount of brain in the basilar and occipital region, constitute the first class. These may be termed *ruffian heads.* In our description of this class, we shall take rather extreme cases. They embrace the class of criminals generally, and all those who need the influences arising from the action of positive laws to protect society from their depredations. They are found among the lowest classes, and usually spring from low and degraded parentage.

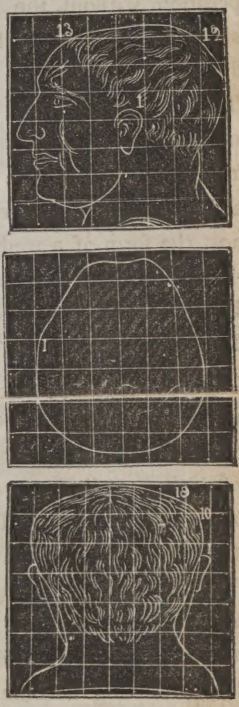
Figures IX. and X. are the cuts of the heads of Williams and Bishop, two murderers lately executed in London for murder, committed to gain money by the sale of dead bodies to teachers of anatomy. These individuals are selected, because their conduct originated, not from morbid excitement, nor any diseased condition of the brain or momentary impulse; but was deliberate and settled; and they therefore furnish a *fair* illustration of the principles of Phrenology. Dr. Elliotson, of London, has given his view of their organization, as taken from an examination of their casts.

"The head of Williams," says Dr. Elliotson, "is far the worse. The intellectual portion is very small, — exceeding low; while that devoted to the animal propensities, the lower posterior and lower lateral parts, especially destructiveness, acquisitiveness, and secretiveness, is immense."

The relation of the developments of the organs to each other is given below: —

FIGURE IX. — THREE VIEWS OF THE HEAD OF WILLIAMS.

DESTRUCTIVENESS, VERY LARGE.
Amativeness, very large.
Philoprogenitiveness, moderate.
Adhesiveness, large.
Inhabitiveness, full.
COMBATIVENESS, VERY LARGE.
ACQUISITIVENESS, VERY LARGE.
Constructiveness, small.
Cautiousness, very large.
Approbativeness, large.
Self-esteem, full.
Benevolence, very small.
Reverence, very small.
Firmness, small.
Conscientiousness, very small.
Hope, very small.
Marvellousness, small.
Ideality, small.
Perceptive faculties, large.
Reflective faculties, small.



With such a deficiency of reflective faculties, moral sentiments, and ideality, and with large lower side organs, (acquisitiveness, secretiveness, and destructiveness,) every thing in his character tended to low habits and villany. So dissipated were his habits, that he left his

occupation of a bricklayer, and associated with thieves and blackguards; — was frequently in custody on charges of felony, and was sentenced to transportation seven years ago for stealing. After that he turned body-snatcher, broke into houses to steal corpses, and at last, for mere expedition, without the persuasion of any one, did not hesitate to murder his fellow creatures, for the sake of selling their bodies.

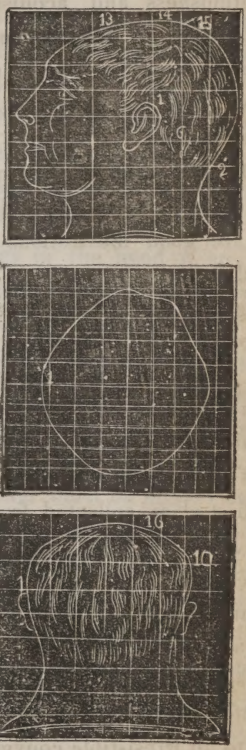
The preceeding views and outline of the head of Williams will give a tolerably correct notion of the general form of his head. The outline shows great breadth of head back of, and between, the ears, giving to the head almost the form of a wedge. The fibre in the occipital region is both long and thick, indicative of great activity and power in the organs of the propensities. The general resemblance of this head to that of Pope Alexander VI. will be readily recognised by a Phrenologist, but it is revolting to look at such, either in high life or low.

"In Bishop," says Dr. Elliotson, "the forehead slopes considerably, and is narrow, — the intellectual portion is wretched; the superior portion, that dedicated to the moral sentiments, is low, (lower than it appears, on account of the hair not having been shaved off there, like that of Williams, previous to taking the casts, and having become matted with the plaster,) and it is particularly narrow, while the lower lateral portions are large, acquisitiveness particularly so. The whole head is much smaller than that of Williams.

FIGURE X. — THREE VIEWS OF THE HEAD OF BISHOP.

The relative proportion of the organs stands thus :—

DESTRUCTIVENESS, VERY LARGE.
Amativeness, large.
Philoprogenitiveness, large.
Adhesiveness, moderate.
Inhabitiveness, average.
Combativeness, small.
Secretiveness, large.
ACQUISITIVENESS, VERY LARGE.
Constructiveness, moderate.
Cautiousness, moderate.
Approbativeness full.
Self-esteem, large.
Benevolence, small.
Reverence, moderate.
Firmness, rather large.
CONSCIENTIOUSNESS, VERY SMALL.
Hope, small.
Perceptive organs, large.
Reflective organs, small.



The smaller size of Bishop's head agrees with the fact, that Williams led Bishop into the course of crime which caused the forfeiture of his life; for it is said, that after pursuing the trade of body-snatching for some time, Williams thought of saving trouble by killing people as they were wanted, and induced Bishop to join him in this

improvement. The preponderance of the lower and posterior region of Bishop's head is as decided as in the head of Williams. The relative developments of conscientiousness and acquisitiveness are such, that he would have no difficulty in lying, perjury, and cheating in every way for gain; and his small combativeness agrees with his character for a sneaking villain, — an arrant coward."

The preceding slightly abridged account of Williams and Bishop, from the Edinburgh Phrenological Journal, are good illustrations of the *ruffian head*, and will stand in strong contrast to the heads of those possessed of high intellectual and moral qualities; — such as Washington, Franklin, Marshall, Lafayette, Rush, and Tilton.

A writer in the Phrenological Journal, commenting upon the above and other *ruffian heads*, remarks, that the Edinburgh Phrenological Society has upwards of eighty casts and sculls of executed criminals, all belonging to the first class, collected from various parts of the globe, and exhibiting the same general character; and the writer says, "he has seen several hundred in England, Ireland, and on the continent, and states the general prevalence of this combination among them to be so obvious and certain, that criminals require only to be looked at, after acquiring sufficient skill in observation, to give rise to an irresistible conviction of an unfavorably formed brain being a *constant* concomitant of naturally vicious dispositions. The *vast majority of criminals* belong to this class; they are born and grow up with preponderating animal propensities, and are relatively deficient in the moral and intellectual powers."

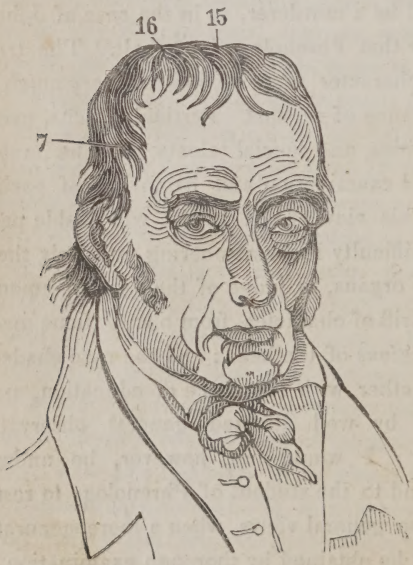
I have been the more particular on this branch of my remarks upon the general form of heads, for the purpose of turning attention more to the development of the regions, and the *general preponderance of related organs* of one kind, over related organs of an opposite kind, as giving a general drift to character. Those, who have not taken pains to study Phrenology carefully, when they see large destructiveness, think the individual must be a murderer, no matter how predominant the moral sentiments are. So if benevolence, reverence, or conscientiousness be full or large in the head of an individual, whose brain is much more developed in the basilar and posterior regions, than in the sentiments, and that individual be a murderer, as in the case of John Turtell, they infer that Phrenology is at fault. The truth is, the general character must be inferred very much from the predominance of regions. Particular traits, peculiarities, eccentricities, and special talents must be hunted out in a detailed examination and balancing of particular organs. This view of the subject will enable people, who have a difficulty in remembering precisely the location of all the organs, to judge of the general amount of talent and drift of character, from observations made on the several *regions* of the head; and the nice shades of character, together with the force of education, may be ascertained by well directed general observations and inquiries. I would not, however, be understood to recommend to the student of Phrenology to rest satisfied with these general views, when a more accurate knowledge may be obtained by thorough examination.

CHAPTER XXXIV.

HEADS REMARKABLE FOR THE PREDOMINANCE OF THE SINCIPITAL AND FRONTAL REGIONS.

CONTRASTED with the ruffian heads of Williams and Bishop, I will present the reader with the portraits of two men remarkable for the predominance of opposite qualities, and who belong in the second or best class. The first is the portrait of Dr. James Tilton.

FIGURE XI. — HEAD OF DR. TILTON.



The form of Dr. Tilton's head will be seen at a glance to be the opposite of that of Williams. The frontal and

middle lobes are much larger than the posterior. The writer never saw Dr. Tilton, but on seeing the likeness of him in the American Medical Biography, was so struck with it, that he was determined at once to select it as one strongly illustrative of the predominance of the higher sentiments, especially of conscientiousness, firmness, and benevolence. The organ of conscientiousness [16] is predominant and supported by very large firmness, [15.]

Next to these in size are the organs of benevolence, reverence, cautiousness, ideality, mirthfulness, causality, and comparison, all of which are large; secretiveness and acquisitiveness are moderate. The portrait does not enable me to speak of self-esteem, love of approbation, adhesiveness, or indeed of any of the organs in the posterior region. On seeing a man with such an organization, rising $6\frac{1}{2}$ feet high, of a thin habit, dark complexion, and cheerful countenance, what would be your impressions? Mine would be, that he is a man of the most strict integrity, great frankness, candor, directness, and love of truth; with great steadiness of purpose and perseverance, he would be kind, sympathetic, and benevolent; would respect others, and would like the homage of genuine respect, but not the fawning of sycophants. He would be somewhat particular in what he required of others, and would have no fellowship with selfishness and intrigue. He would highly enjoy beauty and wit; would be judicious and philosophical, yet practical, and in any society of men all eyes would turn to him, as one on whom the Almighty had fixed the image of an honest, upright man. What say his biographers?

"He was born in the County of Kent, New Jersey, in 1745, of respectable parents. His father died soon after. His mother was a very pious and conscientious woman, and to her example he attributed his religious impressions and success in life. He prepared himself at the suitable age for the medical profession. He was a graduate of the medical school, Philadelphia, in 1771. After commencing practice, he soon obtained a high standing and deserved eminence in his profession. In this, as in every other pursuit, his soul, as towering as his stature, never stooped to unfair means to further his views. He was a generous rival; disdaining low artifice, he invariably treated his medical brethren with respect and generosity; honor and conscious rectitude of intention, by which he invariably regulated his conduct, forbade him to descend to those mean tricks, which always mark the base and illiberal." In 1776 he left his practice, and entered the army of the revolution as surgeon. He afterwards became hospital surgeon, and performed the duties with great skill and assiduity. His views were adopted as a plan for the reform of the medical department of the army, and were attended with complete success. He was a member of the old Congress, 1782. After the war he resumed his profession in his native county. Soon after this he removed to New Castle county, on account of his health. As a physician he was bold and decided, and never temporized with disease, [firmness.] His remedies were few in number, but generally of an active kind, [judgment.] Few physicians exercised more candor towards their patients, [conscientiousness and benevolence.] He never visited or dosed the sick unnecessarily. He had no secrets in medicine,

[small secretiveness.] He stood at the head of his profession in the State, and his naturally strong and discriminating mind peculiarly fitted him for consultation, [large causality and comparison,] and for many years before his death scarcely a case of any consequence occurred, within the circle of his practice, in which more than one physician was necessary, but his advice was requested.

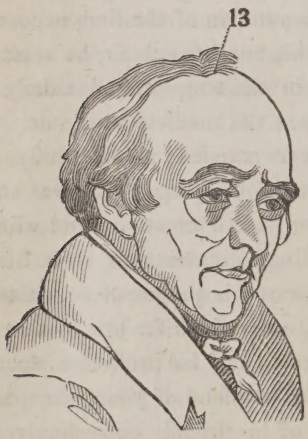
"To young practitioners he was uncommonly kind and indulgent; instead of opposing, he assisted their exertions, [benevolence.] In 1812 he was appointed Physician and Surgeon General of the army of the United States, a station which he filled with honor, although at the age of sixty-eight. At the age of seventy a disease in the knee rendered amputation of the limb necessary. When he had made up his mind to submit, he remained as firm as the pyramids in the tempest, and calmly gave directions to the surgeon and medical assistants.

"Dr. Tilton never married; yet was always an advocate for this happy condition of man. He was an ardent admirer of the fairer part of creation; and whatever might have been his disappointments in early life, he never allowed them to warp his judgment or vitiate his taste. The high regard, entertained for him by that class of his patients in the practice of his profession, speaks volumes in his favor. He was fond of young company, and enjoyed the society of his friends exceedingly. He was a real Christian, and during the latter period of his life the criptures became his principal study. He died 1822 aged seventy-seven.

"In whatever view," says Dr. McLane, "we may consider Dr. Tilton, we shall find many traits to distinguish him from other men. He was in many respects

an original; wholly unlike most other men in person, countenance, manners, speech, gestures, and habits. Whether he walked or sat still, whether in conversation or mute, whether he ate, drank, or smoked, whether in a grave mood or indulging in his loud laugh, all was in a style peculiar to himself, and most remarkable. For honesty and frankness he was proverbial; in these important points he had few equals, certainly no superiors, [look at his head.] His whole life afforded a luminous example of deep-rooted principles and moral rectitude."

FIGURE XII. — HEAD OF DR. RUSH.



The head of Dr. Rush indicates a combination consistent with the character of the philanthropist, Christian philosopher, and the man of deep science. So far as his power of doing and knowing would depend on himself or the instructions of others, there would be scarcely

a limit to his genius; but he was not the man who would command and control others for his own purposes. Nearly all the intellectual organs were uncommonly large. His benevolence acting with them gave him those expanded views, which cannot be satisfied short of the whole human family. His reverence is large also, and this connected with large marvellousness and hope, with moderate self-esteem, and an active, thoughtful habit, would incline him to rational but consistent views of religion. His capacious organs of intellect would desire the knowledge which would make him learned, and his active causality and comparison would give him a turn for reflection and a comprehensive philosophy. In his family he must have been exemplary and kind, but his mere domestic feelings must have been as little conspicuous in his character, as are their organs in his head.

Dr. Rush was born December 24th, 1745, received his collegiate education at Princeton, graduated at fifteen, and studied medicine six years in Philadelphia; thence went to Edinburgh, and there graduated in 1768. While a student he began to keep a note book of remarkable occurrences, which he continued through life. From Edinburgh he went to London and France, and thence returned to Philadelphia and commenced the practice of physic in 1769. He was soon elected Professor of Chemistry in the college at Philadelphia.

In 1791, Dr. Rush was appointed professor of the Institutes and Practice of Medicine and of Clinical Practice in the University of Pennsylvania, retaining his appointment as Professor of Chemistry, the college having been merged in the university. He was a public teacher

of medicine for forty-four years, and probably gave public instruction to between two and three thousand pupils He was in constant search after truth, and always ready to give up old opinions as soon as discovered to be incorrect, [moderate self-esteem and firmness.] He was constantly brooding over the medical systems of others, correcting them by his own observations and reasonings; and bringing the whole to the test of experience. Instead of being proud of his attainments, he was disposed to exclaim "Hæc quantum nescimus."

The character of his mind will be shown by observing the changes he introduced into his profession. When he began to lecture, diseases were reduced, in the manner of the botanists, to order, classes, genera, and species. More than thirteen hundred diseases are enumerated by Cullen. Dr. Rush substituted in its place an inquiry, not so much into the name, as the peculiar nature of the disease. He abandoned this artificial classification, and reduced their numerous forms into morbid excitement, induced by irritants acting upon previous debility. He further simplified the science, by considering every morbid state of the system to be such as to require depletion or stimulation. This is thought to reduce the labor of preparation for practice at least two fifths. About 1790 he began to publish his new views, and he continued improving his system every succeeding year, and introducing the improvements in his lectures. No man more readily retracted his opinions, when new light from any quarter pointed out their defects. His rejection of the division of fever into genera was justified by the following reasons, "They erect imaginary boundaries between things that are of a homogeneous nature; they degrade the human

understanding by substituting simple perceptions to its more dignified operations in judgment and reasoning; they gratify indolence in a physician by fixing his attention upon the name of a disease, and thereby leading him to neglect the varying state of the system; they moreover lay a foundation for disputes among physicians. By the rejection of the artificial arrangement of diseases a revolution must follow in medicine. Observation and judgment will take the place of reading and memory, and prescriptions will be conformed to existing circumstances." His skill and perseverance during the Yellow Fever in Philadelphia, in 1793, were worthy of all praise. His biographer says, "had the same events taken place in the early ages of the pagan world, he would have been deified." His works are voluminous and original, and of incalculable value to the American student. He suffered no fragments of time to be wasted. He was gifted from heaven with a lively imagination, a retentive memory, and a discriminating judgment. From boyhood till his last sickness he was an indefatigable student. He read much, but *thought* more. His mind was constantly engrossed with at least one literary inquiry, to which for the time he devoted his undivided attention. To make himself master of that subject, he read, he meditated, he conversed. It was less his custom to read a book through, than to read as much of all the authors within his reach as bore on the subject of his present inquiry. His active mind brooded over the materials thus collected, compared his ideas, and traced their relations to each other, and from the whole drew his own conclusions. To Dr. Rush every place was a school, and every one with whom he conversed a tutor. His

note book consisted of two parts, one for facts as they occurred, and the other for ideas and observations as they occurred in his own mind, or were suggested by others in conversation. A moderate portion of his time was devoted to sleep, and less to the pleasures of the table. Medical inquiries were the primary objects of Dr. Rush's attention; but he took such a comprehensive view of his profession, that he made all branches of knowledge tributary to it. From the philosophy of mind, as connected with the body, he drew many useful hints respecting the functions and diseases of the latter. Theology, natural and civil history, philosophy, natural, moral, and political; the principles and practices of agriculture, the liberal, mechanical, and chemical arts; histories of voyages, travels, and the lives of illustrious characters, and the nature of man, under all its varieties of age, country, religion, climate, and form of government, were so far known to him as to furnish facts, illustrations, and allegories, casting light on medical subjects.

In the Revolution he served his country as physician-general in the middle department. He was a member of the Congress of 1776, and signed the Declaration of Independence. During the last fourteen years of his life he was treasurer of the national mint.

The humility which characterizes his opinions [small self-esteem] is manifested in the combination of his religious and political views. He says, "the Christian cannot fail of being a republican, for every precept of the Gospel inculcates those degrees of humility, self-denial, and brotherly kindness, which are directly opposed to the pride of monarchy and the pageantry of a court."

He was the founder of the Philadelphia Dispensary, the first of the kind in the United States. He denied the justice and policy and even the right of punishing murder by death, [destructiveness small.] He exerted himself in the temperance cause by endeavouring to suppress the immoderate use of ardent spirits and tobacco, and his opinions are quoted to this day on this subject.

In attending upon patients, his manner was so gentle and sympathizing, that pain and distress were less poignant in his presence. On all occasions he exhibited the manners of a gentleman. He took so lively an interest in every thing that concerned his pupils, that each believed himself to be a favorite, while his kind offices to all proved that he was the common friend and father of them all. Piety to God was an eminent trait in his character. He usually closed the day by reading the scriptures and family prayer.

His desire after knowledge was the engrossing passion of his life. He remarked while young, and when he stepped from the ship that brought him home from Europe, "that no circumstance of personal charms, fortune, or connexions should tempt him to perpetrate matrimony, (his own phrase) till he had extended his studies so far, that a family would be no impediment to his farther progress." He married at the age of 32. "Medicine is my wife; science is my mistress; books are my companions. My study is my grave: there I lie buried; the world forgetting, by the world forgot."

We have presented to the reader the two extremes of character and opposites in cerebral development. In making the selections, we avoided eminent divines, statesmen, and lawyers, not because instances equally strong

were not to be found, but because we might hope to escape prejudice and imputations of partiality. So far as the same can be noticed from general views of the head, the great mass of mankind are ranged between these two extremes. Examples of these may be noticed at all times.

Men, who have been most conspicuous in swaying the destinies of their fellow-men, are such as are characterized for their large heads, with a nearly equal development of all the different regions. The equality of their organizations save them from errors of feeling as well as of intellect. Taking themselves for the correct type of human nature, they come more nearly to the truth. It cannot be necessary to multiply the cuts of heads of this description. The public will readily call to mind many distinguished individuals, who approach to this condition. With strong propensities, they have still stronger intellects and sentiments, so that, unless temptation to evil should be long continued and strong, they will resist. In a favorable state of society, individuals with propensities slightly proponderating, will not be guilty of excesses. As human nature is now constituted, it was the opinion of Dr. Spurzheim, that this is the condition of a great majority of mankind. We have to remark, says he, that in common the occipital region is unfortunately more developed than the frontal. On this circumstance depends in part the general and excessive energy of the animal nature of man. Again he says, the basilar region of the brain is generally larger than the sincipital. This is another cause of the great activity of the animal nature of man.

CHAPTER XXXV.

OF THE FORMS OF THE FOREHEAD.

THERE are characteristic formations of the different regions, and especially of the forehead. In some the perceptive organs greatly predominate; this produces a rapidly retreating forehead. Such people attend readily to things in detail, and the physical qualities and relations of objects, — have great facility in whatever they undertake, and will be very quick in availing themselves of the reflections of others, and may be very happy in illustration, but find it difficult to reason deeply. It is a very favorable organization for a servant or persons in subordinate situations, but not as favorable to those who are required to think more than to observe.* Most of the English statesmen and lawyers, who have succeeded best; have foreheads quite receding. This was the form of the foreheads of Lord Mansfield, Lord Erskine, Sheridan, Canning, and many others who might be named. The forehead of Washington and Lafayette are also rather retreating. In most of these cases, there seems to have been that harmonious balance between the reflective and perceptive organs, which is most favorable to business, judgment, and practical ability.

When the reflective faculties greatly predominate, the middle and superior part of the forehead is prominent, as in the heads of Kant, Locke, Burke, and others.

* The North American Indians usually have a predominance of the perceptive organs. This would be seen in profile view of Black Hawk.

Another class, in whom the reflective organs are very large, with very considerable power in the perceptive organs, may be mentioned. Of this class were Fox, Franklin, Drs. Gall, Spurzheim, and Rush; Alexander Hamilton, De Witt Clinton, Wirt, W*****r, and L**-******n. When the perceptive organs predominate greatly, the character is more simple, and we see more distinctly the effect of motive springing directly from fundamental feelings. This is still more strikingly the case where secretiveness is small. I shall omit to present the reader with sketches or drawings of these varieties, because the slightest observation will enable individuals to select examples for themselves.

CHAPTER XXXVI.

OF THE MODE OF ILLUSTRATING ORGANS, TALENTS, AND CHARACTERS COMBINED.

I SHALL illustrate elementary principles or faculties by giving individuals of determinate characters and talents. The reader will then see how each organ tends to their formation; and he will see it precisely as it is verified in nature. A few observations may be occasionally made, pointing out the organs, but in general this will be unnecessary. A statement of the organization will be given, and this will be sufficient.

Dr. Spurzheim in his work on Physiognomy has given the characters of a large number of remarkable persona-

ges, and he intended to have also written another work on the *Talents* of individuals. As every individual has both character and talent, I see no necessity for a division. It will be my object to give the reader both views in my remarks upon the same individual. The distinction I make between talents and character is this; *Talents* are considered as indicated by certain large intellectual organs combined; and assisted by constructiveness, imitation, ideality, firmness, &c. *Character* is indicated by certain combinations among the sentiments and propensities. Thus a man may have the talent for an artist or an orator, and the character of a rogue, or an honest or religious man.

CHAPTER XXXVII.

CHARACTER AND TALENTS OF ROBERT BURNS.

The following is extracted from an Essay by Mr. Robert Cox, on the character and cerebral developments of Robert Burns. It is a fair sample of the method, in which Phrenology may be applied to the criticism of individual character and talents, not merely from development, but from a person's sentiments and opinions. It is rather too much a *detailed account of individual organs*, but is full of shrewd phrenological remarks, made in a way to be appreciated and remembered by the student of Phrenology. The Essay was read before a Society of Edinburgh, formed expressly for the study and practical application of Phrenology, and published in the Edinburgh Phrenological Journal.

"Before considering the particular faculties by which Burns was distinguished, it may be useful to offer a few observations on his head and character generally. In these preliminary remarks I shall advert, 1. To the *general size* of his brain; 2. To its *quality and activity;* and 3. To the *relative development of the three great divisions of the cerebral organs,* — those of the animal, moral, and intellectual powers.

"1. In GENERAL SIZE, the scull of Burns considerably surpasses the majority of Scottish crania; heads which, even undivested of the integuments, equal it in volume, being regarded by phrenologists as large. The following are the dimensions of the scull of Burns:

	Inches.
Greatest circumference,	22¼
From Occipital Spine to Individuality, over top of Scull,	14
From Ear to Ear vertically over top of Scull,	13
From Philoprogenitiveness to Individuality (greatest length,)	8
From Inhabitiveness to Comparison,	7⅛
From Ear to Philoprogenitiveness,	4⅞
From Ear to Individuality,	4¾
From Ear to Benevolence,	5½
From Ear to Firmness,	5½
From Destructiveness to Destructiveness,	5¾
From Secretiveness to Secretiveness (greatest breadth,)	5⅞
From Cautiousness to Cautiousness,	5⅛
From Ideality to Ideality,	4⅝
From Constructiveness to Constructiveness,	4½
From Mastoid process to Mastoid process,	4¾

"During life, the circumference of Burns's head must have been about 24 inches, the length $8\frac{1}{2}$, and the breadth $6\frac{1}{2}$.

"2. The QUALITY of the poet's brain was still more pre-eminent than its size. Its activity and intensity of action were indeed very remarkable. His temperament appears from Nasmyth's portrait, but more particularly from the descriptions given of his person and the expression of his countenance, to have been bilious-sanguine, or bilious-nervous, (bilious predominating,) both of which are accompaniments of great cerebral and muscular activity. 'His form,' says Dr. Currie, 'was one that indicated agility as well as strength. His well-raised forehead, shaded with black curling hair, indicated extensive capacity. His eyes were large, dark, full of ardor and intelligence. His face was well formed, and his countenance uncommonly interesting and expressive. He was very muscular, and possessed extraordinary strength of body.' Sir Walter Scott, who had the fortune to see Burns, gives the following account of the natural language of his features: 'There was a strong expression of sense and shrewdness in all his lineaments; the eye alone, I think, indicated the poetical character and temperament. It was large and of a dark cast, which glowed, (I say literally *glowed*) when he spoke, with feeling or interest. I never saw such another eye in a human head, though I have seen the most distinguished men of my time.' Independently of temperament and expression, however, there is a sufficiency of direct evidence of the intense vivacity, with which Burns's brain was capable of performing its functions. 'Burns,' says Currie, 'had in his constitution the peculiarities and

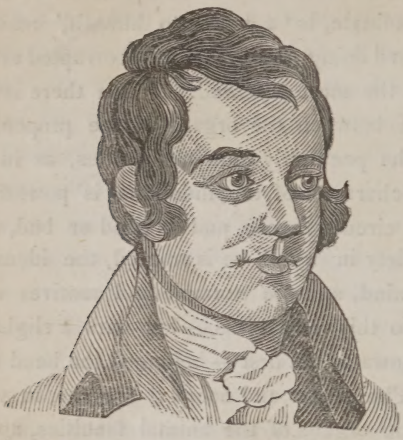
the delicacies that belong to the temparament of genius. Endowed by nature with great sensibility of nerves, he was, in his corporeal as well as in his mental system, liable to inordinate impressions; to fever of body as well as of mind.' To the same effect are the following remarks, from the pen of a female writer, (understood to be Mrs. Riddle,) who knew him well. 'I believe no man was ever gifted with a larger portion of the *vivida vis animi;* the animated expression of his countenance was almost peculiar to himself. The rapid lightnings of his eye were always the harbinger of some flash of genius, whether they darted the fiery glances of insulted and indignant superiority, or beamed with the impassionate sentiment of fervent and impetuous affections.'

"3. With respect to the RELATIVE DEVELOPMENT OF THE THREE GREAT DIVISIONS of the poet's brain. Heads, as is well known, are generally divided by phrenologists into three classes. The *first* includes those, in which the organs of the propensities and lower sentiments predominate over the organs of the faculties peculiar to man; that is to say, where Amativeness, Combativeness, Destructiveness, Secretiveness, Acquisitiveness, Self-esteem, Love of approbation, and Cautiousness, or most of them are larger than Benevolence, Conscientiousness, Veneration, Ideality, and the organs of Reflection. Heads in the *second* class are of an exactly opposite description, and indicate a preponderance of the moral feelings and reflective intellect. The *third* is composed of heads, in which the two orders of organs are pretty equally balanced. A man, whose head belongs to the first of these classes, is naturally endowed with base, selfish, and violent dispositions; and falls into vicious

practices in spite of the best education. He, in whom the organs of the moral sentiments and reflective intellect predominate, is 'a law unto himself,' resists temptation to evil doing, and remains uncorrupted even among associates the most depraved. When there is little disproportion between the organs of the propensities and those of the peculiarly human faculties, as in the *third* class, the character of the individual is powerfully influenced by circumstances, and is good or bad, according to the society in which he is trained, the ideas instilled into his mind, and the example and motives set before him.* To this third class — but with a slight leaning, perhaps, towards the first — belonged the head of Robert Burns. The basilar and occiptal regions, in which are situated the organs of the animal faculties, appear from the cast to have been very largely developed; but, at the same time, the coronal region — its frontal portion at least — is also large; and the anterior lobe, containing the organs of the intellect, is very considerably developed. Besides, the natural force of the regulating powers must have been greatly increased by the excellent moral and religious education which the poet received. The following statement of the cerebral development, indicated by the scull, shows the relative size of the individual organs; and the four views, on page 249, though not perfectly accurate, will convey to the reader a sufficiently correct notion of the general appearance of the scull.

* This is the classification adopted by me, and of the first and second classes examples are already given.

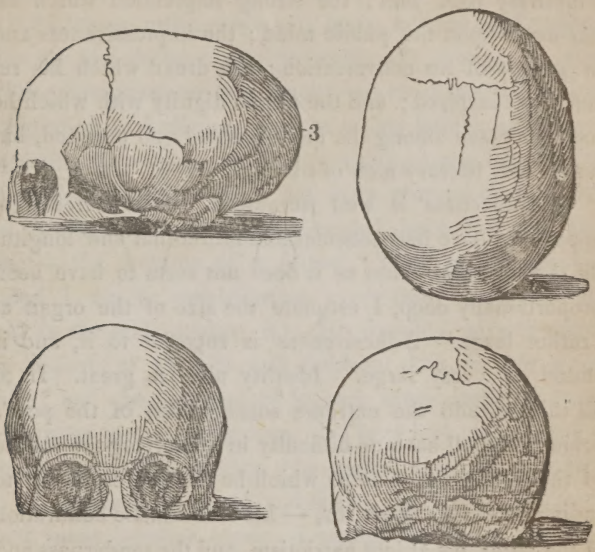
FIGURE XIII.—HEAD OF ROBERT BURNS.



DEVELOPMENT OF THE ORGANS.

1. Destructiveness, large.
2. Amativeness, rather large.
3. Philoprogenitiveness, very large.
4. Adhesiveness, very large.
5. Inhabitiveness, large.
6. Combativeness, very large.
7. Secretiveness, large.
8. Acquisitiveness, rather large.
9. Constructiveness, full.
10. Cautiousness, large.
11. Love of approbation, very large.
12. Self-esteem, large.
13. Benevolence, very large.
14. Veneration, large.
15. Firmness, full.
16. Conscientiousness, full.
17. Hope, full.
18. Marvellousness, large.
19. Ideality, large.
20. Wit, or Mirthfulness, full.
21. Imitation, large.
22. Individuality, large.
23. Form, rather large.
24. Size, rather large.
25. Weight, rather large.
26. Color, rather large.
27. Locality, large.
28. Order, full.
29. Number, rather full.
30. Eventuality, large.
31. Time, rather large.
32. Tune, full.
33. Language, uncertain.
34. Comparison, rather large.
35. Causality, large.

FIGURE XIV.—FOUR VIEWS OF THE SCULL OF BURNS.



"The mind of Burns was indeed a strange compound of noble and debasing qualities. 'In large and mixed parties,' says Dr. Currie, 'he was often silent and dark, sometimes fierce and overbearing; he was jealous of the proud man's scorn, jealous to an extreme of the insolence of wealth, and prone to avenge, even on its innocent possessor, the partiality of fortune. By nature kind, brave, sincere, and in a singular degree compassionate, he was, on the other hand, proud, irascible, and vindictive.'

"It appears, then, that none of the regions of Burns's brain was, in relation to the others, deficient; its total size, we have also seen, was great, and its activity was very extraordinary. Hence the force of character for

which he was remarkable; the respect which men instinctively paid him; the strong impression which he has made upon the public mind; the impressiveness and originality of his conversation; the dread which his resentment inspired; and the native dignity with which he took his place among the more learned and polished, but less gifted, literary men of his day.

"Amativeness is well developed. The cerebellum appears to have had considerable latitudinal and longitudinal dimensions; but as it does not seem to have been proportionally deep, I estimate the size of the organ at 'rather large.' Adhesiveness is superior to it, and is stated as 'very large.' Ideality also is great. If to all this we add the extreme susceptibility of the poet's brain, we shall have no difficulty in perceiving the source of the strong attachments which he formed, especially to individuals of the other sex, — his enthusiastic admiration of the latter, his ardent patriotism, and the tenderness and affection embodied in his songs.

"In conformity with the views of Mr. William Scott, who regards Adhesiveness as 'the centre of true affection,' and Amativeness as an auxiliary though indispensable element in the passion of love, I conceive that, in the loves of Burns, Adhesiveness was a stronger ingredient than Amativeness, — the influence of which also, however, was certainly important.

"I have little doubt that love of Approbation and Secretiveness, which are largely developed, essentially contributed to augment the number of his love adventures. Secretiveness delights in concealment, intrigue, and stolen interviews, and, combined with Individuality, gives tact and *savoir faire*. Its organ was certainly one of the

largest in the brain of Burns, and in love affairs the tendency found abundant gratification.

"Philoprogenitiveness is very large, and the poet's affection for his children was proportionally strong. It was Philoprogenitiveness that formed the chief obstacle to his emigration to America. In one of his letters, after enumerating the various motives by which he was impelled to leave Scotland, he adds, 'All these reasons urge me to go abroad, and to all these reasons I have only one answer — the feelings of a father. This, in the present mood I am in, overbalances every thing that can be laid in the scale against it.' He dreaded poverty more on account of his wife and children, than for his own sake; and the prospect of leaving them destitute gave him many uneasy reflections. 'There had much need,' he writes to Mrs. Dunlop, 'be many pleasures annexed to the states of husband and father, for God knows they have many peculiar cares. I cannot describe to you the anxious, sleepless hours these ties frequently give me. I see a train of helpless little folks; me and my exertions all their stay; and on what a brittle thread does the life of man hang! If I am nipt off at the command of fate, even in all the vigor of manhood as I am, — such things happen every day, — gracious God! what would become of my little flock! 'Tis here that I envy you people of fortune.'

"The organ of Combativeness is also very large. Burns, along with much Cautiousness, had a strong endowment of courage. In the course of his duty as an exciseman, he on one occasion headed some dragoons, waded sword in hand to a smuggling brig on the shore of Solway Firth, and was the first to board her. The crew lost heart and submitted, though their numbers were

greater than the assailing force. (Lockhart, p. 219.) Combativeness was one of the elements in his irratibility of temper. It made him also naturally inclined to disputation, and impatient of contradiction. 'He was more disposed,' says Allan Cunningham, 'to contend for victory than to seek for knowledge. The debating club of Tarbolton was ever strong within him; a fierce lampoon, or a rough epigram, was often the reward of those who ventured to contradict him. His conversation partook of the nature of controversy, and he urged his opinions with a vehemence amounting to fierceness.

"In childhood he delighted in perusing narratives of martial achievements. 'The two first books I ever read in private,' he says, 'and which gave me more pleasure than any two books I ever read since, were *The Life of Hannibal*, and *The History of Sir William Wallace*. Hannibal gave my young ideas such a turn, that I used to strut in raptures up and down after the recruiting drum and bagpipe, and wish myself tall enough to be a soldier; while the story of Wallace poured a Scottish prejudice into my veins, which will boil along there till the floodgates of life shut in eternal rest.'

"The effects of the large Destructiveness of Burns were very conspicuous. From this, and Self-esteem, arose that vindictive and sarcastic spirit which formed one of his chief failings. In one of his letters, he speaks of 'the dirty sparks of malice and envy which are but too apt to invest me;' and in an unpublished piece, he alludes to the terror excited by

> "Burns's venom, when
> He dips in gall unmixed his eager pen,
> And pours his vengeance in the burning line."

"Respecting Burns's Acquisitiveness, a few words are necessary. According to his own description, he was 'a man who had little art in making money, and still less in keeping it.' That his *art* in making money was sufficiently moderate, there can be no doubt; for he was engaged in occupations which his soul loathed, and thought it below the dignity of genius to accept of pecuniary remuneration for some of his most laborious literary performances. He was, however, by no means insensible to the value of money, and never recklessly threw it away. On the contrary, he was remarkably frugal, except when feelings stronger than Acquisitiveness came into play — such as Benevolence, Adhesiveness, and Love of Approbation; the organs of all of which are *very large*, while Acquisitiveness is only *rather large*.

"The indifference with respect to money, which Burns occasionally ascribes to himself, appears therefore to savor of affectation; a failing into which he was not unfrequently led by Love of Approbation and Secretiveness. Indeed, in one of his letters to Miss Chalmers, he expressly intimates a wish to be rich.

"Burns, as we have already seen, was in common silent and reserved. This resulted chiefly from large Secretiveness. His appearance, on the occasion of a visit by Mr. Mackenzie, was very characteristic. 'The poet,' says that gentleman, 'seemed distant, suspicious, and without any wish to interest or please. He kept himself very silent in a dark corner of the room, and before he took any part in conversation, I frequently observed him scrutinizing me, while I conversed with his father and his brother.'—(Cunningham, p. 61.) His love adventures, above noticed, furnish another illustration. Some-

times also, like Sir Walter Scott, whose Secretiveness was no way inferior to his, he disowned the authorship of his productions. 'Burns,' says Cromek, 'sometimes wrote poems in the old ballad style, which, for reasons best known to himself, he gave to the world as songs of the *olden time*. That famous soldier's song, in particular, first printed in a letter to Mrs. Dunlop, beginning, 'Go fetch me a pint of wine,' has been pronounced by some of our best living poets, an inimitable relique of some ancient minstrel! Yet I have discovered it to be the actual production of Burns himself. The ballad of *Auld Lang Syne* was also introduced in this ambiguous manner, though there exist proofs that the two best stanzas of it are indisputably his; hence there are strong grounds for believing this poem also to be his production, notwithstanding the evidence to the contrary. It was found among his MSS. in his own hand writing, with occasional interlineations, such as occur in all his primitive effusions.' — (Reliques, p. 112.) Secretiveness is a chief ingredient in humor, of which Burns possessed a distinguished share.

"Self-esteem was a very prominent quality in the character of Burns. The organ is largely developed and, besides partaking of the general activity of his brain, was peculiarly stimulated by adverse circumstances, and the painful consciousness that his station in life was not that to which his talents made him entitled. Self-esteem, in fact, was a chief source of the annoyances which embittered his days. 'There are,' he says in his commonplace book, 'There are few of the sore evils under the sun give me more uneasiness and chagrin than the comparison how a man of genius, nay of avowed worth, is

received every where, with the reception which a mere ordinary character, decorated with the trappings and futile distinctions of fortune, meets. I imagine a man of abilities, his breast glowing with honest pride, conscious that men are born equal, still giving honor to whom honor is due; he meets, at a great man's table, a Squire Something, or a Sir Somebody; he knows the noble landlord at heart, gives the bard, or whatever he is, a share of his good wishes, beyond, perhaps, any one at the table; yet how will it mortify him to see a fellow, whose abilities would scarcely have made an *eight-penny tailor*, and whose heart is not worth three farthings, meet with attention and notice, that are withheld from the son of genius and poverty! The noble Glencairn,' he adds, 'has wounded me to the soul here; because I dearly esteem, respect, and love him. He showed so much attention — engrossing attention — one day, to the only blockhead at table, (the whole company consisted of his lordship, dunderpate, and myself,) that I was within half a point of throwing down my gage of contemptuous defiance.' Again, in a letter to Mrs. Dunlop, he says, 'When I must skulk in a corner, lest the rattling equipage of some gaping blockhead should mangle me in the mire, I am tempted to exclaim, 'What merits has he had, or what demerit have I had, in some state of pre-existence, that he is ushered into this state of being, with the sceptre of rule and the key of riches in his puny fist, and I am kicked into this world, the sport of folly, or the victim of pride.' "

"'One of the principal parts in my composition,' he writes to his teacher, Murdoch, "is a kind of pride of stomach, and I scorn to fear the face of any man living:

above every thing, I abhor as hell the idea of sneaking in a corner to avoid a dun — possibly some pitiful, sordid wretch, whom, in my heart I despise and detest.' It was his powerful Self-esteem and Combativeness, along with great general size of brain, that gave him that coolness and self-possession in the company of men far above his station, which various authors have remarked with surprise. His manners in that society were, as Professor Stewart notices, 'strongly impressive of conscious genius and worth.'

"Love of Approbation was still more powerful than Self-esteem. Burns was greedy of fame and applause, and extremely annoyed by disapprobation. This was one of the strongest motives by which he was actuated. His cogitations before printing the first edition of his poems, and when he had the full intention of emigrating to Jamacia, are thus recorded by himself. 'Before leaving my native country for ever, I resolved to publish my poems. I weighed my productions as impartially as was in my power: I thought they had merit; and it was a delicious idea that I should be called a clever fellow, even though it should never reach my ears." He writes to Mrs. Dunlop: "I am fully persuaded that there is not any class of mankind so feelingly alive to the titillations of applause as the sons of Parnassus; nor is it easy to conceive how the heart of the poor bard dances with rapture, when those, whose character in life gives them a right to be polite judges, honor him with their approbation.' In another letter the following remark occurs: 'I have a little infirmity in my disposition, that where I fondly love or highly esteem, I cannot bear reproach.' He might have added that advice was almost equally

intolerable. Mr. Robert Riddell, one of his friends, mentions that the poet often lamented to him that fortune had not placed him at the bar or in the senate: 'He had great ambition,' says Dr. Riddle, 'and the feeling that he could not gratify it preyed upon him severely.' (Cunningham's Life, p. 350.) 'He was far from averse,' says the female writer already quoted, 'to the incense of flattery, and could receive it tempered with less delicacy than might have been expected.' The apologies, with which his letters abound, show how desirous he was to retain the good opinion of his friends; and the anxiety which he manifested respecting his posthumous reputation was very great. 'My honest fame,' he says, 'is my dearest concern, and a thousand times have I trembled at the idea of the degrading epithets that malice or misrepresentation may affix to my name.' This letter is so well known, that it is unnecessary to quote farther. One additional illustration of Burns's love of notoriety — from "The Poet's Welcome to an Illegitimate Child," — may be given: —

"The mair they talk, I'm ken'd the better;
E'n let them clash!"

"Cautiousness is much larger than Hope; in consequence of which circumstance, joined to delicate health, external misfortunes, and the raging of passions within, Burns was afflicted with constitutional melancholy, or liability to *blue devils*. His teacher, Murdoch, records that, in youth, 'Robert's countenance was generally grave, and expressive of a serious, contemplative, and thoughtful mind;' and Allan Cunningham, who lived near him at Ellisland, mentions that 'his face was deeply marked

by thought, and the habitual expression intensely melancholy.' 'My constitution and frame,' says Burns himself, 'were *ab origine* blasted with a deep incurable taint of hypochondria, which poisons my existence.' And again, in a letter to Mrs. Dunlop; 'There is a foggy atmosphere native to my soul in the hour of care; consequently the dreary objects seem larger than life.' He always looked forward with gloomy anticipations to the future, and dreaded a time when he should return to his primitive obscurity. The temperament of genius, it may be remarked, adds strength to the cause of hypochondria; for by the laws of physiology, every transport of inspiration is followed by a corresponding depression of mind.

"The organ of Benevolence is very largely developed. This feeling was strong in Burns, and was one of his grand redeeming virtues. Its effusions frequently occur in his correspondence. In a letter to Mr. Hill, he says, 'Mankind are by nature benevolent creatures. There are in every age a few souls that all the wants and woes of life cannot debase to selfishness, or even to the necessary alloy of caution and prudence. If I am in danger of vanity, it is when I contemplate myself on this side of my disposition and character. God knows I am no saint; I have a whole host of sins and follies to answer for; but if I could, and I believe I do it as far as I can, I would wipe away all tears from all eyes.' 'His charities,' says Mr. Gray, 'were great beyond his means.' In particular, he showed great kindness to the harmless imbecile creatures about Dumfries. He could not bear to see a bird robbed of her young; he spared and bewailed the fate of the mouse whose dwelling was upturned by his plough; and the verses written on seeing

a wounded hare pass by, are expressive of the strongest compassion. His feelings on the latter occasion were a remarkable combination of Benevolence and destructiveness; two feelings which, though antagonists, by no means neutralize each other, but may be simultaneously in a state of high excitement. The poem is compounded of the language of imprecation and pity, in almost equal proportions: —

"Inhuman man! curse on thy barbarous art,
And blasted be thy murder-aiming eye:
May never pity soothe thee with a sigh,
Nor ever pleasure glad thy cruel heart!

"Go, live, poor wanderer of the wood and field,
The bitter little that of life remains:
No more the thickening brakes and verdant plains
To thee shall home, or food, or pastime yield.

"Seek, mangled wretch, some place of wonted rest,
No more of rest, but now thy dying bed!
The sheltering rushes whistling o'er thy head,
The cold earth with thy bloody bosom pressed.

"Oft as by winding Nith, I musing wait
The sober eve, or hail the cheerful dawn,
I 'll miss thee sporting o'er the dewy lawn,
And curse the ruffian's aim and mourn thy hapless fate."

"Some may be surprised to be told that Veneration was a powerful sentiment in Burns. That such was the case, however, there seems to be no room for doubt. Professor Stewart says, 'He had a very strong sense of religion, and expressed deep regret at the levity with which he had heard it treated occasionally in some convivial meetings which he frequented.' Allan Cunning-

ham states, that at Ellisland 'he performed family worship every evening.' But his Wonder and Veneration being large, he had naturally a leaning towards things invisible, and both in his letters and in his memoranda makes very frequent allusions to the Deity.

"'My idle reasonings,' he says, 'sometimes make me a little skeptical, but the necessities of my heart always give the cold philosophisings the lie.' Burns's Veneration was displayed in his strong jacobitical feeling, and his reverence for Sir William Wallace. He did not venerate many of his contemporaries, as he thought himself at least the equal of most of them. But men of high rank, who showed him attention, he regarded with much respect. No one, however powerful his Veneration may be, ever reveres those whom, under the influence of other faculties, he despises or dislikes.

"The portrait of Burns seems to indicate a large development of Firmness; but in the cast of his scull, the organ has by no means a marked appearance. A large development of Firmness gives a tendency to persist in purpose, opinion, and conduct. From its activity result perseverance, steadiness, and resolution. So far as I am able to judge, Burns was rather deficient in those qualities. 'The fervor of his passions,' says Mrs. Riddell, 'was fortunately tempered by their versatility. He was seldom, never indeed, implacable in his resentments; and sometimes, it has been alleged, not inviolably steady in his engagements of friendship.' Much, indeed, has been said of his inconstancy and caprices.

"Conscientiousness is in nearly the same condition as Firmness. This feeling was well cultivated in youth by his father, who was a very sagacious, honest, intelligent,

and pious man. It was quite sufficient to render him honest and candid when no contending impulse was present, and also to make him aware of his imperfections; but it wanted power to restrain the vehemence of his lower feelings within the bounds of candor and justice. 'There is nothing in the whole frame of man,' he says, 'which seems to me so unaccountable as that thing called conscience. Had the troublesome, yelping cur powers efficient to prevent a mischief, he might be of use; but, at the beginning of the business, his feeble efforts are to the workings of passion as the infant frosts of an autumnal morning to the unclouded fervor of the rising sun; and no sooner are the tumultuous doings of the wicked deed over, than, amidst the native consequences of folly, in the very vortex of our horrors, up starts conscience, and harrows us with the feelings of the damned.'

"Ideality, — the principal organ of poetical feeling, — is large; though, as might have been anticipated from the degree in which he manifested most of the intellectual faculties, it is equalled in size by many of the other organs. Burns's love of the sublime and beautiful was very strong. His temperament was that which is best adapted for the experience of poetical feeling. He was passionately fond of the beauties of nature, but it was in the dreary, solemn, desolate sublime that he seems to have delighted most. Such a taste I have repeatedly found possessed by individuals with large Destructiveness, Cautiousness, and Ideality, moderate Hope, and a susceptible temperament. Burns was especially fond of the season of winter. 'This, I believe,' says he, 'may

be partly owing to my misfortunes giving my mind a melancholy cast; but there is something even in the

> "Mighty tempest and the hoary waste,
> Abrupt and dead, stretched o'er the buried earth," —

which raises the mind to a serious sublimity, favorable to every thing great and noble. There is searcely any earthly object gives me more, — I do not know if I should call it pleasure, — but something which exalts me, something which enraptures me, — than to walk in the sheltered side of wood or high plantation, in a cloudy winter day, and hear the stormy wind howling among the trees, and raving over the plain. It is my best season for devotion: my mind is wrapped up in a kind of enthusiasm to Him, who, in the pompous language of the Hebrew bard, "walks on the wings of the wind." ' The enthusiasm here mentioned results from activity of Ideality, Wonder, and Veneration.

"Burns was less remarkable for wit than for humor. The former is well described by Lockhart as a 'peculiar vein of sly, homely wit.' Humor depends on the organ of Secretiveness, Mirthfulness, and Individualty; while wit is more exclusively connected with the second organ. The poet had little gaiety of disposition about him, except when stimulated by society or otherwise. 'His wit.' says Professor Stewart, 'was ready, and always impressed with the marks of a vigorous understanding; but, to my taste, not often pleasing or happy.'

"Imitation is large. I am not aware whether Burns indulged in mimicry; but certainly he had a tendency to imitate the style of such books as he was very familiar with. He was a successful imitator of the old songs of

Scotland. Imitation conferred on him also the dramatic power which characterizes some of his humorous productions, such as *The Twa Dogs*, *The Holy Fair*, *The Jolly Beggars*, and also many of his songs. He had an extraordinary tact in assuming for a time the feelings of individuals, — identifying himself with them, — and giving expression to those feelings in forcible and striking language. The great excellence of his songs consists in the admirable adaptation of the words to the tune. 'When his soul,' says Sir Walter Scott, 'was intent on suiting a favorite air to words humorous or tender, as the subject demanded, no poet of our tongue ever displayed higher skill in marrying melody to immortal verse.' For these talents, Imitation is believed to be indispensable.

"The intellect of Burns was of a high order. He was not indeed on a level with such men as Bacon, Shakspeare, or Franklin; but his understanding was nevertheless one of unusual power. The anterior lobe projects much forward, and the frontal sinus probably did not exceed the ordinary size. Individuality seems to have been the largest of the intellectual organs. From this, and Eventuality, which is very little inferior to it, originated the remarkable acuteness of his observation, and the vividness of his descriptions. There is nothing general in the pictures which he draws: every object is given with a distinctness and detail which make us almost imagine that the scene itself is before our eyes. Burns's love of knowledge was very strong, and had the same origin. In youth, as his brother Gilbert relates, he read such books as he could procure, 'with an avidity and industry scarcely to be equalled.' 'No book,' it is added, 'was so voluminous as to slacken his industry, or

so antiquated as to damp his researches.' His penetration into the feelings and motives of others arose from Individuality and Secretiveness, joined to the strength of his own faculties in general. The first gave readiness in noticing and remembering facts; the second enabled him to dive beneath external appearances; and the third furnished the consciousness, and hence the full comprehension, of every faculty which actuates mankind.

"He was fond of travelling, and of visiting scenes renowned in history and song. 'I have no dearer aim,' he tells Mrs. Dunlop, 'than to have it in my power, unplagued with the routine of business, for which Heaven knows I am unfit enough, to make leisurely pilgrimages through Caledonia; to sit on the fields of her battles; to wander on the romantic banks of her rivers; and to muse by the stately towers or venerable ruins, once the honored abodes of her heroes.' This wish he afterwards in some measure accomplished. Its principal source was his powerful Locality. By means of the same faculty, he 'made a good progress' at school in mensuration, surveying, and dialling.

"Respecting Comparison and Causality I have nothing to remark, except that they are indispensable ingredients in a character so sagacious as that of Burns.

"Burns had a good deal of logical power, and could trace acutely cause and effect; but it is hardly necessary to observe, that of his reflective faculties he had little opportunity of making any notable display."

CHAPTER XXXVIII.

CHARACTER AND TALENTS OF RICHARD BRINSLEY SHERIDAN, A DRAMATIST AND ORATOR.

FIGURE XV.—HEAD OF RICHARD BRINSLEY SHERIDAN.

Measurement.	
From Spine to Individuality,	$8\frac{1}{8}$
From Inhabitiveness to Comparison,	$7\frac{1}{4}$
From Ear to Spine,	$4\frac{1}{4}$
From Ear to Eventuality,	$5\frac{3}{4}$
From Ear to Benevolence,	$6\frac{1}{8}$
From Ear to Firmness,	$6\frac{1}{4}$
From Destructiveness to Destructiveness,	$6\frac{1}{4}$
From Secretiveness to Secretiveness,	$6\frac{1}{4}$
From Cautiousness to Cautiousness,	$5\frac{3}{4}$
From Ideality to Ideality,	5
From Constructiveness to Constructiveness,	$4\frac{3}{4}$

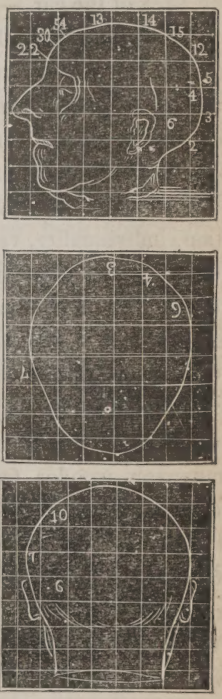


FIGURE XV. contains three outline miniature views of the plaster cast of the head of an individual well known to the world. It was taken after death. He had a large

and fully developed head, with strong propensities and strong sentiments, and in his life manifested great variety of character and talent. His reputation was that of the greatest dramatist of his time, as well as of a distinguished member of the House of Commons.

Remarks. — 1. The foregoing presents a large head strongly developed in all the three great regions.

2. It is a long head before the ear, and a broad rounded head back of the ear, — a form which gives a long slender fibre to the intellectual organs favorable to activity, and short but thick fibres to the propensities, and as a whole possessed of great power. Below the organs are classed, according to size, a much more concise method of distinguishing peculiarities of character.

Class 1. — Combativeness, self-esteem, love of approbation, individuality, very large.

Class 2. — Philoprogenitiveness, inhabitiveness, adhesiveness, destructiveness, secretiveness, veneration, hope, eventuality, size, language, large.

Class 3. — Cautiousness, benevolence, firmness, imitation, locality, rather large.

Class 4. — Amativeness, ideality, weight, color, tune, comparison, wonder, full or average.

Class 5. — Acquisitiveness, conscientiousness, causality, and wit, rather full.

Class 6. — Constructiveness, form, order, time, number, small.

Were such an individual presented to me as a stranger, I would draw several inferences.

1. The highest class of organs are those which give a love of public life, and a courage to overcome opposition. He must be a *public* man. I am confirmed in this

the more from the small size of acquisitiveness, constructiveness, form, order, and number; these would weigh almost as nothing compared with his love of public life. He would never get an estate by the regular business methods.

2. As all the domestic feelings are large, his character in this respect would be strongly marked, would be much attached to wife, children, friends, and home, though his public feelings might keep him away from these sometimes. All this is true of him. He was most devoted to his wives, especially the first. It was a secret marriage. A lady says of him at the death bed scene of his first wife, "that he behaved wonderfully, though his heart was breaking, and at times his feelings were so violent, that it was feared he would have been quite ungovernable at last; yet he summoned up courage to kneel by the bed side till he felt the last pulse of expiring excellence, and then withdrew." His biographer says, "it is impossible for a man to be more devotedly attached to his children than he was; their society amused and consoled him; but when left alone his anguish returned in all its force."

3. Looking at the rank of the side and selfish organs, I find them larger than those of benevolence, reverence, and conscientiousness. The large organs of destructiveness, secretiveness, and combativeness, would act principally with, and subordinate to, self-esteem and love of approbation. But secretiveness and approbativeness, assisted by his reverence, would turn his influence to the use of soft and conciliatory means, grasping rather at the weakness of others, than alarming their terrors. This characterized him.

4. I would infer from the above, that he would be very courtly and agreeable in his manners, and would be respectful to high rank and wealth. This was strikingly the fact.

5. From his large individuality and eventuality acting in connexion with the large secretiveness, love of approbation, and moderate conscientiousness and reflective powers, I should suppose he would have great powers of observation, admirable tact, and a very accommodating, conventional kind of conscience.

6. His reflective powers being only sufficient for a harmonious and equalized action with his powers of observation, and his memory of things and events, and power of language being strong, as a speaker he would find it for his interest to compose carefully in secret, and commit to memory. This was the case with him. All his great speeches in parliament were most carefully elaborated and committed beforehand. But his large secretiveness induced him to throw them out as if entirely extempore.

7. His depth was more a depth of feeling than of thought, hence he would have a great present popularity, but would leave nothing for posterity to remember. [His influence died some years before him, and now he is never quoted as a statesman. He was indeed more of a student than he ever wished to be considered. "His acquisitions," says his biographer, "whether in love, learning, wit, or wealth, are mysterious and miraculous." Yet he gave no evidence of long reaches of thought and great comprehension of mind.]

Having looked at his strong points, let us see how his weak organs would be likely to injure him. His small

acquisitiveness would have but little influence over his thoughts. His moderate cautiousness and large hope would lead him to look on the bright side, so that he would neglect to acquire, except as a means of gratifying his ambition. His pride and ambition would lead to expensive living. With his moderate order, time, and number, he would be likely to involve his pecuniary affairs in confusion; and his moderate conscientiousness would allow him to disregard his promises and engagements; hence he would be likely to be always in trouble about his money matters. [This was his great trouble, the ruinous state of his finances was the cause of his downfall, and his intemperate habits were acquired in attempts to drown his sorrows.] It will be noticed that the organ of mirthfulness, or wit, comes into the fifth class; yet his reputation stands very high on this point. In his play, "The School for Scandal," the dialogue abounds in wit. This, however, did not arise from the direct fervor of composition, but his witticisms and jokes were collected from time to time, and kept in recollection upon the margin, until he had a chance of weaving them into the text. The whole organization is favorable to great cheerfulness, and his mirthfulness was large enough to enjoy the wit of others, his memory served him to glean it up, and his secretiveness assisted him to appropriate it so as to conceal the plagiarism. That these remarks may not be thought to be framed to help out Phrenology, may be seen from the following:

He was in the habit of noting down epigrammatic points in his memorandum book. For a comedy on Affectation, the following is noted. "He certainly has a great deal of fancy, and a very good memory; but with

a perverse ingenuity he employs these qualities as no other person does; for he employs his fancy in his narratives, and keeps his recollection for his wit. When he makes his jokes you applaud the accuracy of his memory, and it is only when he states his facts, that you admire the flights of his imagination." After many efforts to improve upon this conceit for some years, he at last brought it out in a debate in the House of Commons. "The right honorable gentleman is indebted to his memory for his jests, and to his imagination for his facts." Mr. Sheridan knew what it was to draw upon his memory for his wit.

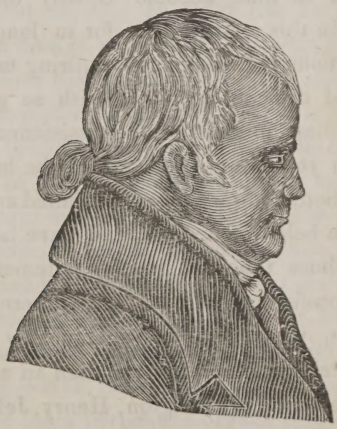
I will close this article with a quotation. "At a period fertile beyond most in our history in men of splendid talents, unaided by the advantages of birth, [his father was an actor,] hereditary wealth, or family connexions, without the assistance of learning, this extraordinary person contrived, by means as mysterious as they were successful, to rear for himself a structure of fame and fortune, as brilliant at least, if not as solid, as that of any, even the greatest, of his contemporaries. Not contented with the reputation of being the first dramatic poet of his time, he aimed at, and acquired, the still higher fame of one of our most eminent orators and statesmen, associated with nobles and princes, 'and might,' as he himself, expressed it 'have hid his head in a coronet, had he been contented to barter his independence for such honors as princes can bestow.' Long, however, before his death, his reputation, public as well as private, had been on the wane. Embarrassments and disgrace gradually thickened around him, and he, who began his career like a comet, advancing with great and accelerating activity

into the full blaze of popular and royal favor, after he had passed his perihelion, run out with diminished force and lustre into the cold and ungenial regions of penury and distress, and ended in an obscurity almost as great, as that from which he had at first so gloriously emerged." *

CHAPTER XXXIX.

CHIEF JUSTICE MARSHALL. TALENTS OF A STATESMAN AND JUDGE, AND CHARACTER OF A MODEST, FIRM, HONEST, INDEPENDENT MAN.

FIGURE XVI. — HEAD OF JUDGE MARSHALL.



It is sometimes said to Phrenologists, "what do you think of the head of Judge Marshall? there is nothing remarkable in its appearance, and it is not large; yet he

* Edinburgh Phrenological Journal.

was certainly one of the greatest men of the age." This question is one which a Phrenologist should delight to answer. The analysis of such a character is full of instruction and of interest to the student of human nature. We do not answer, that he was made what he was entirely by the force of circumstances, although these were remarkably favorable to the development of his great powers. If we allow all to circumstances, we shall admit, that men are made wholly by external influences. This is contrary to common observation, and opposed to the first principles of Phrenology. His cerebral organization appears to have been highly favorable to the attainment of his great excellence as a judge and a man, but we believe there are a considerable number in this country now, who, if acted upon by the same circumstances, would in time become equally distinguished. But no man in this country has, for so long a period, been in situations requiring such untiring mental effort, upon great and difficult questions, with so great advantages for availing himself of the assistance of others. To have been young and educated, at the breaking out of the Revolution, and the son of a talented and judicious officer, to have held a command, and have been actively engaged in those times of great excitement, to have studied the profession of law, and entered upon its arduous duties, when legal information was scarce and constantly in requisition — to have been an active statesman, associated with Washington, Henry, Jefferson, and Madison, in all the great political questions, agitated during the formation of our present national government and his own state government, either as a member of the conventions of the people, or of Congress, or as a secre-

tary of one of the departments, or a foreign minister; and in addition to all this to have been thirty-four years Chief Justice of the Supreme Court of the United States, a court which has power to decide upon all the great provisions of the constitution, whether they rendered null a law of a State or of Congress, besides an extensive jurisdiction in cases arising between citizens, — I say, to have been under all these influences, must have produced a wonderful effect upon an intellect naturally strong and well balanced.

We will now respectfully give our impressions of the *organization* of this distinguished judge. He was a tall man, of rather spare habit, and probably of a nervous, bilious, and sanguine temperament. His constitution was remarkably firm, and formerly he endured great physical efforts without injury. In after life he became more exclusively a man of hard study and deep reflection.

Without ever having seen this great man, and merely from an examination of approved portraits of him, I venture to form the following judgments of his cerebral development. The head is remarkable for its fine proportions, being a general full development; but the model of it is such as to give it a strong preponderance to the higher sentiments and higher intellect. That the organ of comparison predominated is evident both from length of fibre and peripheral expansion. Causality is also large. Individuality is well developed, and was doubtless quite active. The other perceptive organs appear not to have been remarkably large.

The sincipital region is much larger than the basilar. The head is particularly well developed in all the region of the higher sentiments. Benevolence, reverence, firm-

ness, conscientiousness, and ideality, are noticeably large, especially firmness and conscientiousness. The organs of self-esteem and love of approbation were evidently but moderate. His great general powers, (requiring large subjects for stimulus,) and particularly his benevolence and conscientiousness, acted more in giving a relish to public life, than his self-esteem, or love of approbation, or acquisitiveness. Such a man would not seek office, nor accept it unless for the public good. The head not being large in the occipital region, it would not measure as large in circumference as many other heads of moderate intellectual organs, and, for a man of great and well balanced intellect, without strong propensities, I would not desire to see a larger head.

Since the above was written, I have carefully examined the remarkably accurate marble bust of Judge Marshall, by Frazee, from which it would appear that his head in the intellectual region is uncommonly large. From the ear to comparison is $5\frac{3}{4}$ inches, to eventuality $5\frac{1}{4}$, to individuality $5\frac{1}{8}$. The forehead is also broad, measuring not less than five inches across from the external angle of one eye to that of the other. From ear to ear is less than six inches. No other measurements could be made by callipers, which would indicate the size of the head. My judgment of the relative size of such organs, as are indicated by the bust, is as follows: Comparison, predominant; causality, individuality, locality, form, size, order, number, reverence, conscientiousness, firmness, ideality, large; eventuality and language, small.

The natural language of the intellectual organs appears to indicate the greatest activity of a combination of individuality and the reflective faculties, as if investiga-

ting, defining, discriminating, and combining. Through this shines the mildness of benevolence, the respect of reverence, and the inflexibility of firmness and conscientiousness.

We will now see how admirably his organization was fitted, not only to constitute a great judge, but *such* a judge as he is known to have been.

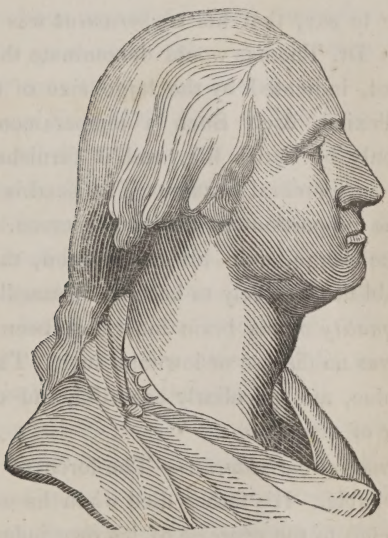
I would remark here, that in giving the *beau ideal* of a judge, we must give that perfection of organization which is necessary to *judgment*. A judge seems by his very name to be Judgment individualized. With an intellectual region so large and well balanced, Judge Marshall had little difficulty in acquiring all the knowledge necessary to the formation of judgment; and his organ of *comparison* gave him his vast power of comprehension and analysis, of contemplating a subject as a whole, and divesting it of all that had not an important bearing upon the question to be decided. But intellect alone is not sufficient to constitute the judge. The feelings should all be active, but should act in harmony. There should be a large organ of conscientiousness. This is but the organ of a blind feeling, but it acts as a power in giving a strong desire to discover the truth and the whole truth, and in exciting the intellect to greater effort when in search of truth. This we have remarked was a very large organ in the head of Judge Marshall. Firmness and cautiousness were also large. The head runs high and is broad directly above the ear, giving room for large cautiousness, conscientiousness, and firmness. These gave a guardedness and steadiness to the progress of his investigations. With the organs of self-esteem and approbativeness moderate, he preferred the duties of a

lawyer to those of public office, and he never felt the office of Chief Justice of the United States, except in its responsibility. His organs of reverence and benevolence being large, these, connected with his moderate self-esteem, rendered him a most *patient listener*. His ideality being rather more than an average organ, [he wrote poetry when a boy,] gave the finish to whatever he did, and, with reverence and conscientiousness, supplied the deficiency occasioned by small self-esteem, and saved him from stooping below the dignity of his situation. The smallness of his love of approbation rendered him deaf to praise, and the smallness of his self-esteem and his large reverence and benevolence rendered him *patient* as a judge, and charitably inclined towards the counsel who addressed him. This is such a man as the country needed, and such as the republic used for her benefit, when great talents were sought after. Such men as he will not reach high office in times, when office is bestowed with reference to party service or party supremacy. In short, we behold in him a hard-working, untiring, powerful intellect, of such vast comprehension as to be equal to any reach. In its composition it is strong, well balanced, and perfect; in its proportions there is little wanting, and nothing superfluous. He was not selected with any view of illustrating the domestic, or mere animal feelings; and his history is sufficiently known to appreciate the remarks made upon his character, as a great, if not the greatest, judge of the age.

CHAPTER XL.

GENERAL WASHINGTON — A SKETCH OF HIS CHARACTER AND TALENTS UPON PHRENOLOGICAL PRINCIPLES.

FIGURE XVII. — HEAD OF WASHINGTON.



I HAVE not seen the views of any Phrenologist upon the character of him, whose memory holds the first place in the hearts of the whole nation. This great, but welcome task I will attempt, availing myself of such facts as can be collected from the descriptions, busts, statues, and portraits of him to be obtained. All the leading events of his life are so well known, that it is unnecessary to repeat them here.

1. *Temperament.* — Judge Marshall observes, "that he was rather above the common size, his frame was robust, and his constitution vigorous, — capable of enduring great fatigue, and requiring a considerable degree of exercise for the preservation of his health; his exterior created in the beholder the idea of strength united with manly gracefulness." From this, with the general appearance of the most celebrated likenesses of him, I do not hesitate to say, that his *temperament* was sanguine. It was what Dr. Thomas would denominate the thoracic temperament, indicated by the large size of the chest, light complexion, &c. Such a temperament can be sustained only by active life, and it furnishes a great stimulus to the cerebral organs. The head is large, but in very fine proportion to his large person. With so much of the sanguine in his constitution, the nervous system would not be likely to become diseasedly active.

2. The *quality* of his brain must have been very fine, and there was no disease or low taint in it. The eye was of a deep blue, and peculiarly beautiful, and capable of great power of expression.

3. *External circumstances.* — The force of these was quite remarkable. His father died when he was young, and he was left to the exercise of his own judgment, and to assist his mother in the management of the estate, in which he had the reversionary interest. He was of a highly respectable family, and had early the patronage of the first men in the state. He was engaged in the back woods as surveyor for some time before his 20th year, when he was appointed Adjutant General of the Virginia forces, and was sent by the Governor with despatches to the French commandant. He was next Aid to General

Braddock, and engaged in the French and Indian War. He was a member of the Old Congress at the opening of the war of the Revolution, and Commander-in-Chief during the whole war, and eight years President of the United States. His whole life was one of responsibility and great excitement, giving the most powerful stimulus to his cerebral organs. He had not a public and college education, but he was always in situations of excitement, by which the large organs educated themselves. He early learned the great art of forming judgments for himself, and acting upon them when formed.

4. *General form of the head.* — The head was well developed in *all* the *regions*, and remarkable for its excellent balance. The shape of the forehead is almost the *beau ideal* for great judgment and practical ability. It is not a forehead for abstractions, nor quiet reading. Men of such organizations as his, grow wise more by experience and observation than by reading. The perceptive organs are in general very strong. His powers of observation must have been remarkable.

5. *Organization, so far as it can be seen and conjectured by examination of his busts*, &c. — Of the propensities he had enough to give great energy to his character. Combativeness and destructiveness were doubtless large and active, giving him courage and a natural impetuosity of temper, but acting in subordination to the higher sentiments. Secretiveness was also large. His well-known prudence of character, was owing more to this, acting with a strong comparison, than to cautiousness. *Self-esteem* was large, but balanced as it was by large reverence, benevolence, and conscientiousness, and little influenced by approbativeness or acquisitiveness, there was

nothing of the abuse of this feeling in his life, while it imparted to his character a most commanding and uniformly sustained dignity and self-respect. This, combined with his combativeness and destructiveness, gave him the natural feelings of a military commander.

His love of approbation was no more than an average organ. Fame and glory were not words of peculiar charm in his ear. Hence, he was unmoved by flattery, and never sought office; but he loved respect, and was always careful to deserve it. Through the whole life of Washington, we are every where impressed with his dignity and self-respect. This, with his large secretiveness and large organ of order, and perceptive organs generally, rendered him attached to forms and ceremonies, and gave him a preference for the modes of worship of the Church of England. Had his organization been different in this particular, he would not have secured that universal respect, which every where was felt for his person and character.

His firmness and conscientiousness were large organs. So were his benevolence, reverence, and hope. These kept his propensities in constant check; and gave that high finish and lofty elevation to his moral character, which, connected with high station, rendered the manifestations of self-esteem an ornament, rather than a blemish. His marvellousness and imitation were the smallest of the sentiments. General Washington was slow to believe, and rather distrustful. He was devotional, but we hear little of his creed; it was doubtless rational, and contained the essential Scripture doctrines: and he was a man whose manners were *individual* and peculiarly his own. He analyzed character and embraced excellence,

but never built his character upon any one human model. The organ of mirthfulness was small.

We have now to speak of his *intellect.* We have already remarked its general features. His organ of comparison was predominant, and, acting more readily with the perceptive organs than with causality, he was judicious and practical. His causality was not so quick and vigorous an organ as his comparison. Hence he did not abound in the spontaneous reasons which flow in upon some minds, but he availed himself largely of reasons presented by other minds. Hence he was deliberate in his judgments, as much from necessity as principle, and he therefore in a manner of great condescension resorted to the aid of the larger causality of his friends around him; but when all the reasons were presented he formed his judgments for himself. Judgment was the great ruling trait of his intellect, and the admirable balance of his feelings contributed quite as much to its results as his superior intellect.

6. *Talents.*—The intellectual organs are combined in a manner to constitute several kinds of *talent.* It is well known that he early became a surveyor; this indicates the natural tendency of his mind. With his large conscientiousness and comparison he would love the truth; and if to this we add his large organ of number and locality, we have the elements of the mathematician. In this department he would have succeeded admirably. So also if we add the other large perceptive organs, we see the elements of an engineer, and a talented military commander. He would have been highly distinguished as an engineer. His views of great public works were extensive and judicious. His organ of language was

moderate, and this would have retarded his success as a naturalist.

7. *Character.* — Mirthfulness being small, and ideality but average, with large reverence and self-esteem, we have the grave, dignified, and useful character. In the combination of destructiveness, combativeness, self-esteem, reverence, firmness, large, we have the feelings of a military character. The same organization, with a little less of combativeness and destructiveness, and more studious and less active habits, (just such as would be compatible with advanced life,) would fit him for a President, by availing himself largely of the talents of others, who have more of partial, with less of general ability. In a private station the same organization would make him the dignified, industrious, high-minded, honest, punctual private gentleman. His head was high, and all the organs of an elevating tendency were large. This led him to respect rank, family, talents, order, and an energetic government of laws.

CHAPTER XLI.

THE CHARACTER AND TALENTS OF LAFAYETTE.

All our conceptions of this great and good man are so delightfully blended with emotions of attachment, respect, and gratitude, that it seems to be a cold and irreverent undertaking, to apply the same rules of judgment to him as to other men. But to have his example

FIGURE XVIII. — HEAD OF LAFAYETTE.

valuable, his character should be studied and understood; to award to him qualities, which he did not possess, is an injustice to him and to ourselves, of no less magnitude than to deny to him that cluster of virtues so richly his own. His qualities were of that kind which will bear the scrutiny of rigid analysis, such as Phrenologists must always apply, or else prove recreant to their favorite science. I do not know that any Phrenologist ever availed himself of a critical inspection of his cerebral developments, — if so, I believe the result has never been published. Neither is there to my knowledge a plaster cast of his whole head accurately taken which can now be inspected. The busts of him are characteristic, and probably sufficiently correct, for the formation of judgments of his organization in all the leading points, with an accuracy, which, taken in connexion with what we know of him, is sufficient for our present purposes.

1. In youth he was tall and slender; in advanced life he was less slender, but not corpulent. His chest was large, and his temperament sanguine and nervous, — an organization favorable to great activity of the cerebral organs. His brain too must have been of a very fine *quality*.

The head was large, but in very fine proportion to his body. Its general form was indicative of length of fibre in the intellectual region; and in the regions of the sentiments and domestic feelings there was both considerable length and breadth of fibre. It would be characterized as a thin, long, high head, rather than as a broad, low head. There was no deficiency of the side organs, so far as they give energy and discretion to character. But so far as they are selfish in their nature, they were more than balanced by the higher sentiments.

Analysis of organs. — The organs of the domestic feelings were large. His attachments to wife, friends, children, and home, were very strong, and at no place was it more delightful to see him, than at his own beloved La-Grange, surrounded by his numerous descendants, relatives, and friends.

The organ of courage or combativeness was large, and his personal courage and bravery were never doubted. This was a strong hereditary feeling. His ancestors were distinguished for courage. His father died fighting for his sovereign in the battle of Minden. In the language of Washington to Congress, (after the battle of Brandywine, where Lafayette fought and bled in our cause,) "he possesses a large share of bravery and military ardor." Secretiveness seems to have been well developed, but his cautiousness was not large. The prudence of character

awarded to him by Washington, and which belonged to him through life, was far less the result of cautiousness than of secretiveness, and that combination of intellectual organs, which is very peculiar to him. He certainly had but little *acquisitiveness*, the organ does not appear to have been large, and we see no manifestation of it through life. He inherited a princely fortune, and he needed only to take reasonable care of it. His disinterestedness in this particular is evident from his stipulation with Mr. Deane to enter the American service. His self-respect, however, was no way deficient, as we might expect in a young nobleman of a family second only to that of royalty. He carefully stipulated for the commission of a Major General, but for *no emolument*. He does not appear to have possessed an undue share of love of *approbation*, so characteristic of his nation. It was not for glory, that he left his country, his wife, his child, and his doting friends, at the age of nineteen, when to do it he had to fit out his own vessel, and to escape from the custody of the civil authorities, and risk his life, his fortune, and his honor, in the cause of a country foreign to his own. Neither was it any far-reaching, self-seeking prospect; but other motives impelled him to the work, his conscientiousness and benevolence were excited, and these, with firmness, were the predominating feelings of his life. The sudden manner, in which he resolved to join the American cause, shows it to have been impulse, and not the cool calculation of reflection. It was at a time of life, too, in which the impulses are strong, and in him, large as were his feelings then compared with his intellect, we do not hesitate to avow that the determination was made, and persisted in under the influence of

these strong sentiments. "At an entertainment given by his relative, the Marechal de Broglie, the commandant of the place, to the Duke of Gloucester, brother to the British king, and then a transient traveller through that part of France, he learns, as an incident of intelligence, received that morning by the English prince from London, that the Congress of Rebels, at Philadelphia, had issued a Declaration of Independence. A conversation ensues upon the causes, which have contributed to produce this event, and upon the consequences which may be expected to flow from it. The imagination of Lafayette has caught, across the Atlantic tide, the spark emitted from the Declaration of Independence; his heart has kindled at the shock, and, before he slumbers upon his pillow, he is resolved to devote his life and fortune to the cause." *

The *injustice* of the British king towards the colonies excited his *conscientiousness*, and his *benevolence* led him to sympathize with the injured party. These principles, thus excited and pained, aroused his firmness, combativeness, and destructiveness, and determined him to join their cause. The more unequal and desperate, the stronger the feelings. When the American commissioners discouraged him, by recounting to him the unpromising condition of their cause, the answer of Lafayette is, "The more desperate the cause, the greater need has it of my services; and if Mr. Deane has no vessel for my passage, I shall purchase one myself, and will traverse the ocean with a selected company of my own."

He doubtless felt the more strongly the wrongs of America, from the great strength of his self-esteem and

* Oration by J. Q. Adams.

his benevolence. There was never a champion of liberty and of human rights, without a large share of self-esteem. This is heightened by firmness, conscientiousness, and benevolence. A revolutionary organization is one of a large head in general, and large combativeness, destructiveness, self-esteem, firmness, and benevolence, and small reverence, with the residue of the organization sufficiently equal to produce no imbecility.

This was not the organization of Lafayette, nor indeed of the master spirits of the American Revolution. He, like Washington, had large reverence and conscientiousness; his sentiments, when uttered in favor of liberty, or against tyranny, would be strong, but he would never be ultra in his measures.

His head was of the form which fitted him for a military commander in a just cause; but his scruples of conscience would prevent his enlisting in any cause indiscriminately. It must have been just such a cause as that of American Independence, or as the first stages of the French Revolution.

His reverence and attachments being large, they gave to his notions of government a bias, which led him to believe in the union of what was heterogeneous in their nature. He was all alive to the rights of mankind and to rational liberty. This was not only congenial to the constitution of his mind, but was a sentiment deeply fixed by a five years' struggle with the Americans, where the rights of man were a constant theme of discussion. His was not a great, far-reaching intellect, original in its combinations, and vast in its comprehension. The reflective organs are not large. Mr. Adams remarks, "there are in some men qualities which dazzle and con-

sume to little or no valuable purpose. They seldom belong to the benefactors of mankind. They were not the qualities of Washington or Lafayette." A Phrenologist understands this. Lafayette after five years' experience in America could not, like a great statesman, go home and infuse such a change into his own government, as would secure liberty to the people under it, and also preserve their *respect* and *obedience*. Neither his intellect nor his feelings fitted him for this task ; — a task, indeed, to which few have ever been equal. His conscientiousness, self-esteem, firmness, and combativeness, induced him to prepare a Declaration of Rights, copied substantially from an American form, and to propose and secure a constitutional form of government, which guaranteed the rights and repsesentation of the people. But the mode of representation was badly contrived. It was a union in one body, of the clergy, nobles, and third estate in a National Assembly, without check from any other ; and this soon assumed all the powers of government, leaving little but an hereditary crown upon the head of Louis XVI. Mr. Adams remarks, that "a hereditary monarchy, surrounded by popular institutions, presented itself to the imagination of Lafayette, as a practical form of government, nor is it certain that even to his last days he ever abandoned his persuasion. The element of hereditary monarchy in this constition was not congenial to it. The prototype, from which the whole fabric had been drawn, had no such element in its composition. A feeling of *generosity*, of *compassion*, of *commiseration* with the unfortunate prince, then upon the throne, who had been his sovereign, and for his ill-fated family, mingled itself, perhaps unconsciously to himself, with his well rea-

soned faith in the abstract principles of a republican creed. The total abolition of the monarchical feature undoubtedly belonged to his *theory*, but the family of Bourbon had still a strong hold on the affections of the French people, and the same doctrine, which played upon the fancy and crept upon the *kind-hearted* Lafayette, was adopted by a large majority of the National Assembly, sanctioned by the suffrages of its most intelligent, virtuous, and patriotic members, and was finally embodied in that *royal democracy*, the result of their labors, sent forth to the world under the guaranty of numberless oaths, as the constitution of France for all after time." How plainly do we see in this the action of his large benevolence, reverence, and adhesiveness, too strong for his reflective powers.

Having sworn to support this *royal democracy*, history shows with what a wonderful attachment, firmness, and deep sense of duty, he struggled to maintain it from 1789 to the dethronement of Louis XVI., 10th of August, 1792.

Destructiveness was always a well regulated principle in Lafayette, never manifesting the slightest abuse at any time. When a great majority were "wound up by that war of conflicting interests and absorbing passions, enkindled by a great convulsion of the social system, Lafayette alone is seen to preserve his fidelity to the king, to the constitution, and to his country."

His hope and marvellousness were strong principles, especially the former. His hope never failed him, whether in prison, or in whatever situation his eventful life exhibits him.

We have now passed in review all those feelings, which appear conspicuous in his character, and we see in their

combination every thing that is kind, respectful, just, liberal, elevated, disinterested, bold, heroic, and tender. His sentiments are always elevated and pure. In that one noble wish, which he uttered for our happy Union, we behold the outgoings of his noble feelings, "May this immense temple of freedom," said he, "ever stand a lesson to *oppressors*, an example to the *oppressed*, a sanctuary for the rights of mankind! And may these happy United States attain that complete splendor and prosperity, which will illustrate the blessings of their government, and, for ages to come, rejoice the departed souls of its founders."

It remains now to speak of the intellect and talents of this great man. The forehead of Lafayette rapidly retreated, and gave an appearance of smaller reflective organs than he possessed. I measured the organs of individuality and comparison, on the most approved bust of him, and found them to measure from the ear about $5\frac{5}{8}$ inches each.

The average of Scottish heads, as estimated by Mr. G. Combe, would be less than 5 inches from ear to individuality, and the bust of Marshall measures at the same point but $5\frac{1}{8}$ inches, and he measures but $\frac{1}{8}$ of an inch more than Lafayette from ear to comparison. An inexperienced Phrenologist would not be likely to give an individual of such an organization credit for as much reflective power as he would possess. I would classify the organs as follows: — individuality, predominant; configuration, size, weight, color, large, or very large; locality, predominant; order, very large; number, moderate; eventuality, rather large; language, very large; comparison and causality, rather full, or full.

The very large size of the perceptive organs generally enabled him to observe with great accuracy, and, united with his strong feelings, would give him a strong tendency to active life, rather than study and abstract reflection. He would remember individual countenances with great ease, and attend to details. This was strikingly true of him. He lived a long life and through a remarkable period, — he took an active part in three revolutions — was five years in the solitude of a prison; yet what has he written beyond what he was compelled to write in the discharge of his duties, or in the gratification of his social and domestic feelings? He took no part in all the struggle which succeeded the downfall of the royal democracy, except as a representative of the people, until 1830. No book contains his views of government fresh from his own mind. In the language of Mr. Adams, "he discovered no new principles of politics, or of morals, he invented nothing in science, he disclosed no new phenomenon in the laws of nature." Washington said of him, a few months after his arrival in this country, "he is sensible and discreet, and has made great proficiency in our language." This was true; he had tact and good sense, and felt as a gentleman should feel, and was discreet in his manners; but had he possessed the large reflective organs of Franklin, he would have left the records of their action, in many large volumes, upon science, morals, politics, &c. &c.

The organs of locality, and individuality, and order are large; these, with his domestic feelings, would give him great delight in home and the management of his farm at La-Grange. He would also be a most delightful companion, full of facts and incidents, which touch the feel-

ings and win the heart. He too would be exceedingly industrious and attentive to the wants and rights of others. He would be a most accomplished gentleman, not merely because he had always been accustomed to the best society, but because he had that inbred politeness which depends upon the organization. In quiet times his talents were equal to any executive station, not excepting the highest; but in revolutions, although he had all the courage and firmness requisite for the boldest undertakings, he had neither that affluence of expedient, nor suppleness of principle, which would enable him to act a leading part; and his self-respect would not brook an inferior station.

CHAPTER XLII.

DR. FRANKLIN, HIS CHARACTER AND TALENTS — A PHILOSOPHER, A POLITICIAN, MORALIST, AND MAN OF BUSINESS, PRUDENT, AMIABLE, FASCINATING, HONEST, AND PERSEVERING.

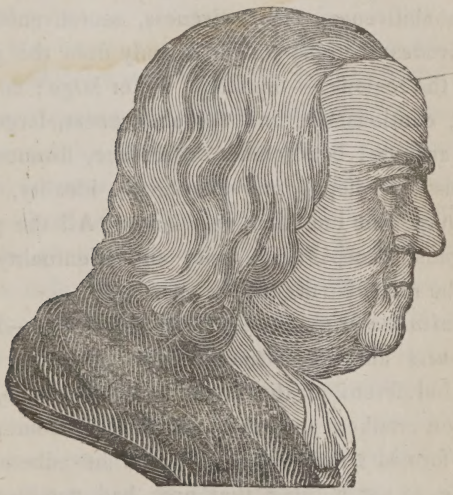
A FULL delineation of the organization of this great man would be a practical commentary upon nearly all the primitive faculties of our nature.

He inherited from both his parents an excellent constitution, remarkable for the equal development of all its parts. It would be difficult to assign to him a distinctive *temperament*, as it was an equally balanced combination of the constituent portions which belong to them all; in youth sanguine and nervous, in age nervous and lymphatic. His digestive powers were always remarkably good, and

he became somewhat corpulent in old age, but while active and in the meridian of life his sanguineous system was strong, and he possessed a good share of muscular power and activity, and was capable of great and long sustained mental and physical exertion.

2. The quality of the brain was good. His eye was animated, and his whole appearance indicated great spontaneous activity of the cerebral organs.

FIGURE XIX. — HEAD OF DR. FRANKLIN.



3. The head was very large, and remarkably developed in all the regions. The frontal lobe was immense, and yet seems perfectly balanced by the sentiments and propensities. It is of the third class of heads, from which we may expect a great diversity of character, and variety of genius. He would feel no difficulty in attending to many pursuits at the same time, and change from one

pursuit to another. Hence we see him as a printer, a trader, a postmaster, a publisher, an editor, an almanac maker, a philosopher, a moralist, and a statesman, — at home in all, and never seeming burdened by his labors.

I examined the bust of Dr. Franklin sold in the shops. It is larger than life, but probably the proportions are preserved with a good degree of accuracy. The relative size of the organs, so far as they can be detailed, are nearly as follows: — Alimentiveness and destructiveness, moderate; amativeness, philoprogenitiveness, adhesiveness, inhabitiveness, combativeness, secretiveness, and acquisitiveness can be judged of only from the general form of the regions, — doubtless, full or large; constructiveness, cautiousness, and approbativeness, large; self-esteem, average; benevolence, reverence, firmness, conscientiousness, hope, marvellousness, ideality, large; mirthfulness and imitation, very large. All the perceptive organs, except time, tune, and eventuality, were large; the reflective organs are very large.

Organization with analysis and comments. — His *destructiveness* and *alimentiveness* were evidently small. He was indifferent to the pleasures of the table, living often upon crackers and other simple food from choice. He also formed a resolution, to which he adhered for a long time, to eat nothing that ever had possessed life, believing at the same time, that the capture of fish even was a sort of murder committed without provocation.

His *attachments* were evidently strong. He dwells much, in his own account of his life, upon his early friendships. I think, however, that his social feelings arose as much from the extreme activity of his organs in general, and their strong tendency to sympathize with the active

organs of others, as in the large size of adhesiveness. His early attachments to place were certainly not strong, for he seems to have left his native city without regret, and he wandered much in the early part of life. His combativeness was evidently somewhat active, manifesting itself with his reflective faculties in argument, or with mirthfulness in his wit, or ridicule, or humor. He remarks of himself, that he was much given to disputation when young, and was induced to leave it off because it involved him in difficulties. He then adopted the maxim of Pope:

> "Men must be taught as if you taught them not,
> And things unknown proposed as things forgot."

Secretiveness was certainly sufficiently active to give a balance to his character, but never manifested abuse. It was, however, less active than his love of approbation, or conscientiousness, for he relates with unequalled frankness the whole of his early life, not in the least attempting to hide its faults. Acquisitiveness was certainly active, and he was for many years exceedingly devoted to business, and accumulated a large estate. But in early life he seems to have been comparatively indifferent to accumulation, though he was never prodigal. He is said never to have spent a farthing in folly or dissipation. His maxim at the age of thirty was, "The use of money is all the advantage there is in having money." The accumulation of wealth was submitted to as a necessary means of enjoying the gratification of philosophy. Hence we see that as soon as he had accumulated as much as he thought of advantage, he retired from business to his favorite scientific pursuits. His reputation as a philosopher was nearly all acquired after the age of forty-two.

The *constructiveness* of Dr. Franklin has manifested its activity in various ways. He inherited this from his father, "who was versed in mechanics, and could upon occasion use the tools of a variety of trades." Franklin's father adopted a most rational method, not only of instructing his son, but of discovering the peculiarity of his genius, by taking him sometimes to see masons, coopers, braziers, joiners, and other mechanics, employed at their work. "I have since," says Franklin, "in consequence of these visits, derived no small pleasure from seeing skilful workmen handle their tools; and it has proved of considerable benefit to have acquired thereby sufficient knowledge to be able to make little things for myself, when I have had no mechanic at hand, and to construct small machines for my experiments, while the idea I have conceived has been fresh, and strongly impressed on my imagination.

Cautiousness was evidently an active organ; his head was broad at that region, and we find him much addicted to provide against impending danger. His public measures and recommendations are eminently precautional. He warns the citizens of Philadelphia against the dangers of attack from a foreign enemy, and against accidents by fire. All his maxims have a strong bearing that way. Hence he remarks that he had gone through life so happily, that he should be quite willing to live it over again, claiming only the author's privilege, of correcting the second edition; a thought which he afterwards changed, and introduced into his epitaph.

His *love of approbation* was evidently very strong, acting with his benevolence and conscientiousness. Hence he sought to obtain a great name by being emi-

nently *useful*, and contributing to the happiness of mankind. It is true his head was large, and his conceptions were so vast and comprehensive, as to denote his superiority from the first. But he was certainly exceedingly gratified with praise. It evinced no small activity of this feeling, to undertake the writing of his own life. His reverence was also active, for he was especially delighted with the notice of the *great*. He speaks of having "appeared before kings." To this circumstance we must attribute much of the instruction, which so constantly flowed from his conversation.

I have presumed his *self-esteem* to have been no more than average. I have strong evidence of this, from a review of his life. How different was he from General Washington in this particular. There is not in any of his writings or sentiments the least appearance of anxiety about personal respect and dignity. He could not fail to know his superiority over others, and his taste would lead him to prefer good society. But I see no indications of pride. He never pushed himself forward. He had not a particle of audacity, and he seems almost surprised at himself, that he had ever risen so high, and made so much noise in the world as he had done. His life is said to have been a perpetual lecture against the idle, the extravagant, and the proud. He eventually arrived at the highest honors. But had his wonderful intellect been supported by the grave, dignified self-respect of Washington, all the early part of his life would have been different, and his march to high places would have been much more rapid. Washington's self-respect never would have permitted him to write his own early life and give all its follies and weaknesses. But Franklin had

the wisdom of an angel, with the feelings of an ordinary man. He was sometimes egotistical it is true, but it was the manifestation of approbativeness.

Benevolence, &c. — The general, full, and equal development of the higher sentiments, with his small destructiveness, would incline him to humanity and tolerance. He thought criminal codes far too sanguinary, — denied the principle, that punishments may be made examples to deter from crime, calling the reply of the judge to a condemned horse-stealer, that he was " not to be hanged for stealing the horse, but that horses may not be stolen," brutal and unreasonable. He was opposed to privateering and to the slave trade. His benevolence was certainly a remarkable trait in his character; with his large approbativeness and conscientiousness, it produced that mildness so remarkable in his manners. Many public institutions experienced his well-timed liberality. His whole life was but a great and ardent desire to be useful.

His *reverence* was a strong principle; but it acted with his intellectual organs in giving a great veneration for the sayings and writings of the great and wise of past ages. His organization was highly favorable to an antiquarian taste.

His head rises rather high at firmness, and his perseverance in all the great undertakings of his life show the presence of the feeling. It however always acted in harmony with benevolence and conscientiousness. Hence whatever he undertook was pursued. This was true of his philosophical experiments and his public negotiations. The versatility of his pursuits operated somewhat against the feeling, but this arose from the great number of his large and active organs, and his uncommonly voluminous head.

His *conscientiousness* was evidently a strong principle. He carefully enumerates the great errors of his life, many of which he repaired in the best way he could. His benevolence and adhesiveness excited him to believe in the promises of his friend Collins, and he loaned him money that was entrusted to him by Vernon. But he yielded only at Collins's continued importunity and promises to repay. And having done it, he was for a long time exceedingly alarmed lest Collins should fail to make good his promise. He enumerates this "violation of trust as one of the first errors of his life." His conscientiousness shows its activity in the case of Miss Reed, to whom he had been inconstant during his abode in London, and he made amends by marrying her after his return, although she had been led to marry another man in his absence, that marriage being invalid on account of her husband's having another wife.

Hope was strong through life. In no instance do we hear of his gloom or dejection; this assisted to spread over his countenance that cheerfulness which always characterized it. He was certainly as remarkable an instance of happiness, as of transcendent talents.

His *marvellousness* was large and active. It was this, together with his large intellect, which gave him such a thirst for knowledge; "his curiosity was unbounded." That he was credulous appears from the readiness with which he believed the promises of Sir William Keith. But he was then young, inexperienced, and exceedingly anxious to get established in business, and *flattered* by the attentions and promises of Sir William. Early in life his religious views were rather skeptical, but afterwards he seems to have believed in the leading Christian doc-

trines. His deep-searching intellect would see the fallacy of many of the superstitions current in the world; and when we begin to doubt, it as much evinces the activity of marvellousness to believe every thing false, as to believe every thing true; it is thus we often see people rushing from one extreme to the other, believing all or rejecting all.

His *ideality* was large, and we find him indulging in poetry early in life. His first compositions were of this character. The perfect, the beau ideal, the pure always delighted him. The polished style of Addison he made his model. The simple style of his writings is to be accounted for from the structure of his intellect.

His *mirthfulness* is a very fully developed organ, and its influence upon all the manifestations of his mind is quite apparent. It is this which lends a great part of the exquisite charm which his writings possess. His stories and his sayings abound in rich humor. His memory seemed to possess a strong grasp upon any thing ludicrous or singular. Any one who reads his life will see how readily he gathers up the ludicrous incidents, and singular conditions of his early life, and the pleasure he seems to take in dilating upon all the minute particulars: his naratives have all the interest of Don Quixote or Gil Blas. He recounts with peculiar delight his first appearance in Philadelphia in his working dress, covered with dirt, and his pockets stuffed with shirts and stockings, his three rolls of bread under his arms, his going into a quaker meeting-house and falling asleep, &c. It was his humor, always delicate and refined, combined with ideality and mirthfulness, which gave the principal interest and attraction to those little pieces, which he so frequently sent to the press.

His *imitation* appears large upon the bust, and it was doubtless very active. It was to this that he was indebted for his constant improvement until late in life, and his ability to suit himself to any society. We have several striking instances of its action, in connexion with his mirthfulness, when late in life; as in the case of his imitation of Scripture style in the parable against persecution, and his African speech on the slave trade, in ridicule of a speech made in Congress on this question by a member from Georgia. So perfect were these imitations, that many looked in the Scriptures for the parable, and others searched ancient libraries for the pretended African speech.

We have thus examined the affective faculties in detail, and it must have occurred to the reader that few individuals have manifested so frequently, strongly, and distinctly so many of the primitive feelings. He was a large headed boy, and was precocious in his feelings, as well as intellect, and it is fortunate that his birth was so obscure, and that organs tending to such spontaneous activity had so little to excite them. Children of the organization of young Franklin, born in these days of great excitement, where books abound every where, soon become morbidly excitable. Their heads consume the energies of the whole system, and they are nipped as it were by the frost, while yet in the early blossom. Dr. Franklin remarks, "that he had often regretted, that when he was young and had such a thirst for knowledge, that no more books were within his reach." I answer, that to this circumstance, probably, are we indebted for the continuance of his life and health, and the long brilliant light of his great genius.

We will now notice his splendid intellectual organization. The whole anterior lobe is very large, the perceptive and reflective organs were both large. This is a rare combination, and where we find it, and other things equal, we find a highly gifted individual. His early employment of type-setting, gave great exercise to his perceptive organs, and that they w re active appears from his own statement. "My extraordinary quickness in composing always procured me such work as was most urgent." His powers of observation were quite remarkable, but I think that for this he was as much indebted to the spontaneous activity of his reflecting organs, constantly hungry as they were for some subject on which to feast, as to his perceptive organs. His observations were not confined, nor indeed principally directed, to the external physical qualities and relations of objects, but he was constantly tracing out causes and comparing them. It is not necessary to go into a detailed examination of the perceptive organs; they are quite remarkable for their general fulness. Language appears large, and it is known that he acquired several languages after he was far along in life. He was not, however, a fluent speaker; but I attribute that more to the infrequency of his attempts, the moderate size of his eventuality, and the peculiarities of his mental constitution, than to his insufficient power of language. His speeches were usually short and very much to the purpose. Had his eventuality been a very large organ, and had he been trained to parliamentary debate, or the bar, he would have been able, and perhaps inclined to pour out a speech of any ength. Individuality was large, and his power in this organ seems much greater than in eventuality. He never

attempted to write history. Anecdotes and humorous stories, so far as they gratified mirthfulness, were remembered. It is said of him that "he was qualified to penetrate into every field of science, and his unremitted diligence left no field of knowledge unexplored. His curiosity was unbounded; his inquiries extended over the face of nature, but he appeared most interested in the study of man. *Truth* was the sole object of his researches." But he did not explore the fields of knowledge merely to gather together rude materials. He was more remarkable for his powers of deep thought and reflection, than for the extent of his knowledge. What he gathered was never reproduced with the original stamp upon it; it returned polished and enriched with the peculiarities of his own genius. It is said of him, "nothing passed through his hands without improvement. No person went into his company without gaining wisdom. His sagacity was so sharp and his scientific knowledge so various, that whatever might be the profession or occupation of those with whom he conversed, he could meet them upon their own ground. He could enliven every conversation with an anecdote, and conclude it with a moral. By a judicious division and appropriation of time, he acquired the art of doing every thing advantageously, and his amusements were of a nature that never militated with the main objects of his pursuits. From every situation he extracted something useful for himself and others. He turned every incident of his life to some valuable account, deriving therefrom experience and caution."

CHAPTER XLIII.

AN AMBITIOUS CHARACTER, WITH THE TALENTS OF A POLITICIAN.

FIGURE XX. — A FANCY HEAD.

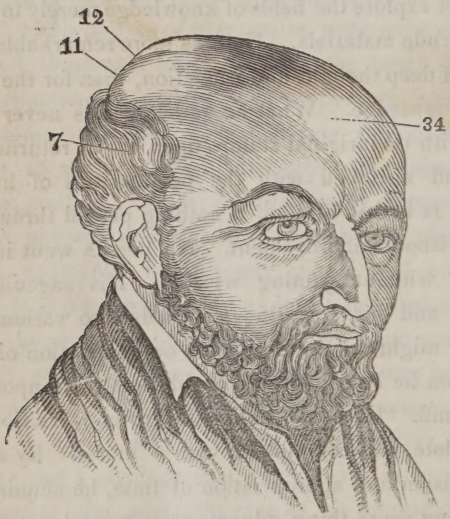


FIGURE XX. is an antique fancy head, whose organization indicates an ambitious man. I will suppose him to possess an active temperament and fine quality of brain, with a large head. He would be active, and possessed of superior power, destined to no middle flight. It may be interesting to delineate the course of a man with such an organization, when devoted to political life and advancement under the influence of our free institutions.

The organization in general is full and finely balanced. The organs designated are very large, yet do not appear as protuberances. They are by situation in those points of the head where they would of course be large, if the head were of this general model. It will be observed that it is wide and rather low in the frontal sincipital region, with a considerable elevation and elongation at the sincipital posterior section, with a broad forehead, full at the centre. The side organs are large, especially acquisitiveness, secretiveness, and combativeness. Of these secretiveness is the most central, and is the largest organ in a region characterized for general fulness.

Self-esteem and love of approbation are both very large; inhabitiveness and philoprogenitiveness are large and in a region of large and active organs; firmness is also quite large; these, except the last, are all selfish. Benevolence and reverence, and conscientiousness are by no means sufficiently strong to counterbalance them; such a man therefore would be likely to think of himself in all things. Causality, comparison, and all the intellectual organs are large; but among them comparison is decidedly the largest. It would be constantly in the service of self,—on the committee of ways and means,—maturing and executing plans of self-aggrandizement. But the next question occurs, in what way would such an individual seek to gratify his selfish feelings? Would it be by accumulating wealth in a private station, or would he be better gratified in a public station? It is a law of mind, that the organs will be active in harmony with each other. Love of approbation would fill his conceptions with the delights of public notice and office. This would also gratify self-esteem by the *respect* it would

secure. Self-esteem might be reasoned into satisfaction by suggesting that wealth is very much respected, but still he would be loth to desert his powerful and importunate near neighbour, approbativeness.

At last we may suppose the difficulty settled by a stipulation, which exercises acquisitiveness, secretiveness, approbativeness, and self-esteem, and at the same time, furnishes employment for firmness and comparison, and all the rest of the organs. A high office, to which is attached a respectable salary, must be sought, and secured. To obtain this would require a great share of comparison, secretiveness, love of approbation, and perseverance; when obtained, self-esteem and acquisitiveness would be gratified.

What would be the probable course which a young man of such an organization would pursue, starting as most young men do in this country from small beginnings? Suppose the legal profession should happen to be the pursuit of his choice, he would enter upon it with great industry and perseverance, and in a few years he would find himself, no one could tell how, at the head of the practice in his county, and spoken of by all, as a young man of great perseverance, untiring industry, and fine talents. He would be popular, and his friends would be numerous throughout the county. His own town or district would elect him a representative to the legislature. Here he would find a field open to him congenial to his taste. He would be untiring in his exertions, especially out of the house, and would become acquainted with all and enter into the views and plans of all; he would help them and they him; all this, under cover of secretiveness, would be unseen, unsuspected,

yet felt every where. Those who converse with him, would feel as if they had parted with all they knew, by a most delightful process, and when they come to examine carefully what had been given in return, would be surprised to find that they had been flattered and felt extremely comfortable.

It is unnecessary to pursue farther the course of a man with such an organization. He will as certainly continue to advance from one point to another as the sun in the horizon. It will in time come to be a sentiment, that he *will* have whatever he wants. His organization so far harmonizes with the greatest numbers, that he has an intuitive perception of their sentiments. And as he cannot excite their reverence, gratitude, and sense of justice, he appeals to their selfish principles. He inculcates, as one of the grand principles, to reward faithful party service, and that the laborer is worthy of his hire. Offices belong to our friends, the faithful of the party. Combativeness and adhesiveness, those strong principles with the greatest numbers, are excited; all are regarded as either *friends* or *enemies*.

Another principle, suggested by self-esteem, is that inferiors must submit to the plans of superiors, so far as the distribution of office is to be made among the political laborers. But the people, — the dear people, are above all! and their wishes are to be studied with the greatest care, and never to be deserted!

The next inquiry is, how will such men discharge the trust confided to them? It must be recollected that they seldom get the highest offices, in times of great trial and general anxiety. It is only when things go along smoothly, and common talents are all that are required.

In warlike and revolutionary times, men like Washington, who *prefer* private life, but who for the public good accept office, will be brought forward. It is only when the ship of state sails quietly over a smooth sea, and patriotism slumbers, that men may gamble for the chances of manning and steering her. In such times the ordinary duties will be very well performed by mere politicians; while higher office remains in the gift of the people, it will not be for their interest to betray their trust, and when the highest is obtained, and all selfish purposes are gratified, and debts of party and personal service and attachment are discharged, from the patronage of the government, the respect and the praise of their countrymen is still desirable. They will therefore have no interest to betray their trust. Such are substantially the traits of character which we must expect to find in ambitious men, who come into the highest offices under mere party supremacy. This is placing government in the hands of those who have a passion for governing. The people, like the visitors of a picture gallery, only see and feel the *effect*, and these are the artists, who, with the most care, study not to improve but to gratify their tastes; they are at once the *servants* and *rulers* of the people!

CHAPTER XLIV.

MICHAEL ANGELO BUONAROTI — TALENTS OF A PAINTER, SCULPTOR, ARCHITECT, ETC. CHARACTER OF A FIRM, HONEST, STERN, INDEPENDENT, INDUSTRIOUS, BUT IRRITABLE MAN.

FIGURE XXI. — HEAD OF MICHAEL ANGELO.

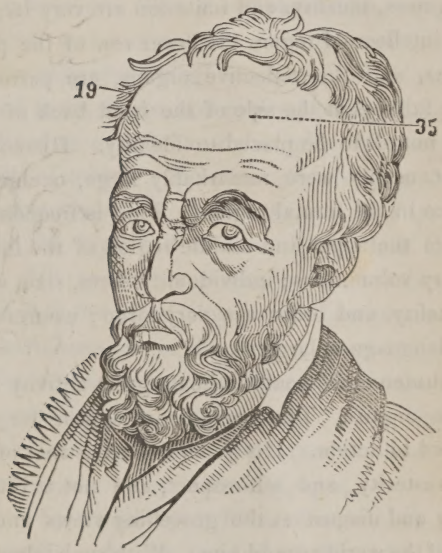


FIGURE XXI. is a drawing of the head of *Michael Angelo Buonaroti*, copied from an engraving, which was taken from an original picture by himself. It must have been somewhat flattered, or else his head was one of the most remarkable the world has ever known. It runs high, and is exceedingly large in the sincipital region.

The intellect is immense, yet the region of the affective faculties is fully equal to it. From another and side view of him, now before me, it would appear that the head was quite large in the occipital region, indicating great energy in several of the propensities. Destructiveness was small, but adhesiveness, inhabitiveness, and combativeness are large. Constructiveness is very large; approbativeness and self-esteem were predominant; benevolence, reverence, firmness, conscientiousness, hope, marvellousness, ideality, and imitation are very large.

In the intellectual region the lower row of the perceptive organs, and the reflective organs, are particularly large, the fullness at the side of the head back of mirthfulness is not all to be placed to ideality. His comparison and causality were remarkably large, occupying a large space in the frontal region. This is frequently the case where the upper and middle region of the forehead appear very voluminous; individuality, form, size, weight, color, locality, and order are very large; eventuality is full, and language is large.

The countenance would indicate great activity in the perceptive organs. The corrugators appear large and accustomed to action. His general look is that of great gravity, austerity, and self-respect, and not a little like irritability and disgust at the grovelling views and conceptions of the world around him. With such talents connected with firm health, what might not a man accomplish? He would be a universal genius. He might have excelled as an orator, a poet, a philosopher, a man of learning, and in all the arts of design. His sentiments would greatly predominate over his other propensities, and when not vexed and irritated, his feelings would be

lofty, grave, and refined, and his conceptions would be strongly tinctured with reverence, ideality, and wonder. Yet chastened constantly by comparison, they would be in good keeping, and such as could be brought forth with great majesty and effect. But so different would his exalted, noble, and expansive views be from all the world around him, that he would be constantly thwarted and checked in his desires, and feel the mortification of submission to those of whose inferiority he could not but be deeply conscious. This would sometimes engage him in difficulties, and increase the irritability of his temper. His destructiveness being small, and his conscientiousness, and benevolence, and reverence large, he would not be inclined to gratify his ambition by the destruction of the rights of others. His ambition would go along with his conscientiousness, reverence, and ideality, and call into aid the higher and lower intellect, in the arts of design. His propelling principles are too strong to be satisfied with the life of literature and retirement, else he would have been one of the greatest poets of any age.

We have given our impressions of him, as indicated by his organization and physiognomy. How far do they agree with his life, as we have extracted it from the most approved writers in the following pages.

He was born in the year 1474, of an ancient and illustrious family. At the time of his birth his father was governor of the castle Chiusi and Caprèse. Michael Angelo was put to nurse with the wife of one of the masons of the quarries, near the place where his father resided, and used jestingly to attribute his excellence as a sculptor, to having imbibed with his milk a love for the chisels and mallet of his foster-father. His father was

poor, but of illustrious descent. He was placed at a grammar-school, but he preferred drawing to study, and snatched every opportunity for that purpose. The profession of an artist being at this period in little estimation, the pride of the father and uncle was shocked at the notion of his son's following the arts as a trade, and they therefore sought not only by persuasion, but by chastisement to check his drawing taste. [This discloses the family pride, and shows the stimulus of opposition acting upon great firmness and combativeness, and it added fuel to the flame.] His father finding it impossible to stem his son's inclinations, at last consented to his becoming a painter, and he was placed under the most eminent painter in Italy. He early displayed great talent; one by one, his fellow pupils were surpassed, and it was not long before he ventured to criticise the designs of his master.

His progress under his master was that of a genius, frequently producing drawings of great merit. It was not long before they were noticed by Lorenzo de Medici, who became a judicious patron, and by means of whom he formed an acquaintance with the learned men of the time, by whom Lorenzo was surrounded. During this period he obtained the friendship of Politian, the most accomplished scholar of his age, by whose advice he executed the celebrated small bas relief of the battle of Hercules and the Centaurs, which at once established his fame as a *great artist.* During his studies in the garden of Lorenzo, a late fellow student, in a fit of envy at his rising greatness, or on some quarrel, struck him so violent a blow on the nose with a mallet, that he bore the mark through life. [This may be seen in the drawing.]

He early evinced the activity of his reflective powers, by his study of the parts of the human figure and the functions of the organs. He indeed made the anatomy of the human figure his great study.

The *age* in which he lived was highly favorable to the excitement of his genius; it was near the time of the revival of letters, the fine arts, and the invention of printing, which followed in quick succession. It was indeed mainly *his* genius that called into new life the arts of painting and sculpture, and it was he, united with Brundeschi and Bramante, who was destined to raise those splendid fabrics, which rival the greatest monuments of ancient architecture. Before this time, the works of antiquity were little appreciated, but Lorenzo and others had recently formed a collection of them. These were well calculated to excite the reverence, wonder, and ideality of Michael Angelo.

When the Medici were driven from Florence, he was obliged to leave the city, and went to Bologna, and thence to Venice. At Bologna he executed a statue for one of the public buildings. He was assisted here by Aldrovandi, an officer of state, who became his patron, and induced him to read Petrarch, Dante, and Boccacio aloud. He then returned to Florence, and there executed a sleeping Cupid. He was afterwards, in consequence of this, invited by St. Giorgio, the purchaser of this, to go to Rome. The next two works were a Cupid and a Bacchus, then a group consisting of a Virgin and dead Christ, called Pietá, which was placed in the chapel of St. Peter's. He then returned to Florence, and there cut the celebrated statue of David with a sling in his hand, from a spoiled block of marble, out of which

some other sculptor had begun to cut a statue; for this he received 400 ducats. The limits of this article will not permit even a full enumeration of the works he executed.

On Julius II. succeeding to the papal crown, Michael Angelo was invited by him to Rome, to be employed in executing a magnificent sepulchral monument. The original design was vast, and suited to his genius, but it became difficult to find a site for its reception. It was suggested that such a monument was worthy of having a chapel built on purpose to receive it. Julius considering it could not be well placed in the old basilica of St. Peter's, it was at last determined that the church itself should be rebuilt, and hence the origin of the present church of St. Peter's, the most stupendous structure that the art of man ever produced. The sublime and sombre cast of Michael Angelo's genius, admirably fitted him to erect the monumental structures for those chapels, which, from their vastness and grandeur, were well calculated to fill the minds of the ignorant worshippers with wonder, reverence, and sublimity.

As the figures for the monument proceeded, they obtained universal admiration. The favor shown Michael Angelo produced him enemies, and his disposition, which was independent, unsuspecting, and somewhat haughty, [self-esteem, firmness, and conscientiousness,] was not such as to guard him against these evil machinations. By the pope's directions he always applied to him for the money requisite for the work: on the arrival of some marble from Carrara, payment of the freight being required, he went to the Vatican, but finding the pope engaged, he returned and paid it out of his own money,

thinking to be reimbursed immediately; but on returning to the pope he was repulsed by a groom of the chamber, and refused admittance, apparently, nevertheless, without the direction of Julius. He went home in anger, and, ordering his servants to sell off all his effects, fled immediately to Florence. Julius sent for him to return, but to no effect. He then sent a brief to the Florentine republic, requesting that he might be sent back. [Here is combativeness, self-esteem, firmness, and conscientiousness.] This he disregarded, and two others followed, more authoritative than the former. Dreading the anger of Julius, he determined, in consequence of an invitation from Bajazet II., to proceed to Constantinople to superintend the erection of a bridge between the city and Pera.

But he was prevailed on to listen to the pope's wishes, and to insure safety on his return, was invested with the title of ambassador from the Florentine State. But the pope had now become enraged, and on meeting him when he was then just entering Bologna as a conqueror, at the head of his army, manifested great anger and impatience, and Angelo begged his pardon and clemency. The pope, considering that the artist was ignorant of all but art, took him into favor, and he returned to his service. The pope, at Bologna, where he then was, ordered him to execute a bronze statue of himself. After finishing this, he returned to Rome to work upon the monument. But Bramante, one of the architects of St. Peter's, who conceiving the pope inclined more to sculpture than to architecture, persuaded him to abandon for a while the completion of the monument, urging that it was ill-omened to prepare a tomb during his life. It was he who sug-

gested that Michael Angelo should be employed in painting the vault of the Sistine chapel. Julius was not sorry for an excuse to change his employment, and set him about this new undertaking. Unused to work in fresco, he met with many difficulties, but executed his task in a manner which fully sustained his previous reputation. Just before the pope's death, Michael Angelo was ordered to complete the monument or mausoleum, but Leo X., the successor of Julius, again took him from his work, even in tears. From this time this splendid genius was required to spend nearly nine years at the quarries, in an employment suited to the talents of any stone-mason.

During the reign of Adrian VII. he returned to his work upon the monument of his patron Julius, but was again interrupted by his successor Clement VII. Clement was early plunged in war, and, in those which succeeded, Michael Angelo was involved in the troubles of contending parties, and at last took sides against the family of his patron, and was appointed by the Florentine government a military architect, or engineer, to superintend the erection of the necessary defensive public works, and displayed equal skill and patriotism throughout the siege. He, however, became suspicious of other leading persons, whom he informed against, and, as his warnings were disregarded, and he considered himself treated with contempt, he withdrew secretly from Florence to Venice.

He afterwards was induced to return, where he remained until the downfall of the city and the treaty of peace, and was at last brought anew under the patronage of Clement, and after this of Paul the III., where he was permitted to finish the monument to Julius, but in a manner much more limited than the original design.

After this he painted the Last Judgment, and as age prevented his continuing to paint in fresco, he returned again to work in marble, saying, "that he found the exercise of the mallet and chisel necessary to keep him in health."

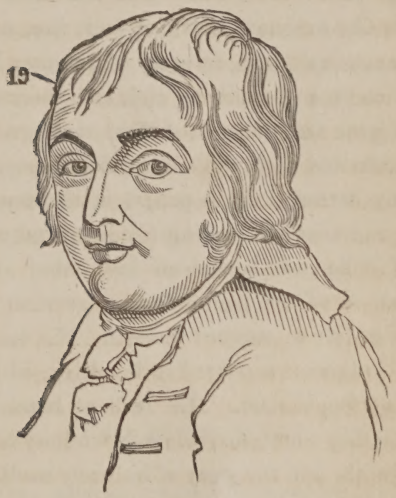
At the age of seventy-one we find this wonderful man commencing a new career in architecture, taking the charge of the building of St. Peter's. Bramante, Raphael, and San Gallo were successively appointed to conduct this mighty undertaking, and removed by death. Michael Angelo was then appointed, and gave in the design from which the present building was erected. It was with reluctance that he undertook so heavy a charge. It was indeed only at the express command of the pope, and on the unusual condition that he should receive no salary, as he accepted the office purely from devotional feelings. He also made it a condition, that he should be absolutely empowered to discharge any persons employed in the works, and supply their places at his pleasure. To the independent and upright feelings, which led him to insist on this latter clause, the factious opposition, which harassed the remainder of his life, is partly to be ascribed. Repeated attempts were made to remove him by those, who found his honesty and independence in their way. He would willingly have yielded, but for his sense of the greatness of the undertaking in which he was employed. During the life of Paul, and through four succeeding pontificates, he held the situation of chief architect; and before his death, in Feb. 1563–4, the cupola was raised, and the principal features of the building unalterably determined.

It is said of him, "that sublimity of conception, grandeur of form, and breadth of manner, are the elements of his style. As painter, as sculptor, as architect, he attempted and, above any other man, succeeded to unite magnificence of plan and endless variety of subordinate parts, with the utmost simplicity. His line is uniformly grand : character and beauty were admitted only as far as they could be made subservient to grandeur. To give the appearance of perfect ease to the most perplexing difficulty was the exclusive power of Michael Angelo. He is the inventor of epic painting, in that sublime circle of the Sistine chapel, which exhibits the origin, the progress, and the final dispensation of theocracy. He has personified motion in the group of the Cartoon of Pisa; embodied sentiment on the monuments of San Lorenzo ; unravelled the features of meditation in the Prophets and sibyls of the Sistine chapel; and, in the Last Judgment, with every attitude that varies the human body, traced the master-trait of every passion that sways the human heart. The fabric of St. Peter's, scattered into an infinity of jarring parts by Bramante and his successors, he concentrated ; suspended the cupola, and to the most complex, gave the air of the most simple edifices."

CHAPTER XLV.

GEORGE MORELAND, A PAINTER.

FIGURE XXII. — HEAD OF MORELAND.



IN this head we readily recognise the predominance of the basilar region, or large size of the propensities and the small size of the sentiments. Cautiousness, approbativeness, conscientiousness, and ideality are quite moderate. He would not be stimulated by ambition, or sense of duty, or anxiety for the future. He would, therefore, have nothing but his lower propensities to excite him to exertion. His tastes and sympathies, too, would be congenial to those in whom the same feelings predominate, and his sense of the beautiful would be

insufficient to elevate his taste. The strength of his perceptive organs (nearly all of which appear to have been large) would enable him to give mere likeness to his paintings, without any thing of the beautiful or sublime.

It is said he had talents as an artist of a high order, but his tastes and feelings were exceedingly low and grovelling. It is recorded of him in the Lives of Eminent Artists, by Cunningham, that "at four, five, and six years of age he made drawings worthy of ranking him among the common race of students, and, as a mere copyist, his fame had gone far and wide before the age of sixteen; but he associated with idle and profligate boys, and spent the money earned by his pencil at the tap-rooms with pot-boys, and hostlers, singing his song and cracking his jokes. Till he was seventeen his father received the greatest share of the money for his services; from this time he was left to support himself. His entire want of taste and judgment appeared in his dress, which was the extreme of foppishness. His skill of hand was great, and his facility wondrous, while his oddity of dress, his extreme youth, and the story of his early studies attracted curiosity and attention, — and sitters came — the wealthy and the beautiful. But the painter loved low company, and all that was polished or genteel was the object of his implacable dislike. Pleasure could not be purchased without money; and to get money it was necessary to work; and during his short career he painted four thousand pictures, most of them of great merit. They were mostly produced under the stimulus of intoxication, and the strong excitement of immediate payment. He had a look at once sagacious and sensual, and his character was essentially vulgar. He loved all kinds of company,

save that of gentlemen; it gave him pain to imitate the courtesies and decencies of life. As an artist, he is original and alone; his thoughts are natural, and he never paints above the most ordinary capacity, and gives an air of truth and reality to whatever he touches. He was the rustic painter for the people; his scenes are familiar to every eye, and his name on every lip." How strikingly do we see in all this the absence of ideality, conscientiousness, and love of approbation, and indeed the general predominance of the propensities.

From this disagreeable description, let us turn back to the noble image of Michael Angelo, and who shall say that all the difference in them resulted from education and external circumstances!

CHAPTER XLVI.

MRS. MAEDER, BETTER KNOWN AS MISS CLARA FISHER. — TALENT — AN ACTRESS.

Mr. Combe has given a front outline view of Miss Clara Fisher, in his System of Phrenology, as illustrative of the organ of imitation. I have never seen her, but have carefully examined a print published by Bourne of New York, from which the present engraving was copied; and from this it would appear that she has a remarkably full development of the frontal organs in general, such as characterize the heads of precocious children. Benevolence, marvellousness, and ideality are large, and

FIGURE XXIII. — HEAD OF CLARA FISHER.

imitation is particularly so; the intellectual organs are also in general large, especially the two rows of perceptive organs. Her temperament is sanguine and nervous, and her person below the medium size.

I notice among the perceptive organs eventuality, individuality, time, tune, and language, as particularly large. I am informed by a gentleman, who knows her public history well, that she first appeared on the London stage at the age of seven, and soon attracted great attention. Almost from the first, she was entirely unlimited in range of character, taking both male and female parts in tragedy, comedy, and the opera. When at about the age of eight she played the character of Richard III., and many other parts equally difficult and apparently unsuited to her age and sex. She came to America at about the

age of twelve, and appeared as a star throughout the principal cities. At this time she appeared more frequently in several pieces expressly written for herself, and played in some half dozen juvenile characters, both male and female. She was indeed a sort of Matthews in miniature.

She is one of those rare cases of great precocity, which have not disappointed the expectations of mature years. She is said to have, in a remarkable degree, the power of wholly losing herself in the character she represents, — a power which requires great activity of secretiveness, marvellousness, imitation, individuality, and the perceptive organs generally. Although imitation is large, it is but one of the faculties to which she is indebted for her success.

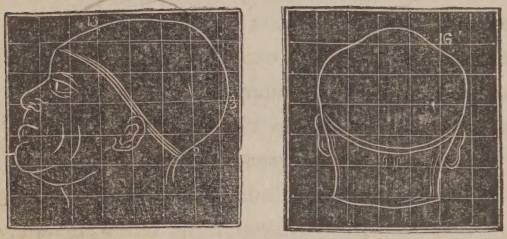
CHAPTER XLVII.

G. M. GOTTFRIED, A MURDERER BY POISON.

The figure on the succeeding page is introduced for the purpose, not only of illustrating the very small size of some and very large size of other organs, but one in which the greatest crimes may be accounted for, by simply looking at a few points. It is not one of the low class of ruffian heads, yet it is one of those cases in which it is very difficult to draw the line between extreme moral depravity and partial insanity. The head above the band, extending from the eye-brows to the top of the ear in the profile, and running between the ears in the

back view, was denuded of the integuments before the cast was taken, so that the figure represents the *bare scull.*

FIGURE XXIV.—TWO VIEWS OF THE HEAD OF GOTTFRIED.



The Edinburgh Phrenological Journal gives her developments, so far as it is important to know them. From destructiveness to the same, without the integuments, is 6 inches. The measure at secretiveness is the same. Destructiveness, secretiveness, and firmness are the most prominent organs, benevolence and conscientiousness are the most deficient. Here is a combination which would make her a demon in disposition, and give her nerve to execute, and power to conceal whatever she would attempt. The other points of her organization are such, that she would desire to carry the appearance of decency and *outward* morality. Her organs of reverence, love of approbation, and self-esteem were large. She would not therefore be low and brutish; she would not seek to go above her rank, and she would not be satisfied to fall below it. She is therefore one of those characters which may sometimes be found among the respectable classes, who commit secret crimes without compunction, and still maintain their position in society.

G. M. Gottfried was a resident of Bremen, and had lived in apparently easy circumstances in the middle ranks of life; her house was elegantly furnished, and her dress and demeanour that of a lady; her reputation was untainted, and the frequent deaths that appeared in her house were ascribed to heavy and unaccountable visitations of God.

At twenty she married a rich but intemperate widower, whom she disliked. Soon after this marriage she met Gottfried, her future husband, at a ball, and from that day all her wishes were directed towards him. She now began to color her cheeks with rouge; hours were spent before her glass; and from her toilet she hurried to her kitchen window, and remained there to see him pass to his counting-room; but Gottfried took no notice of her. She had by her first husband four children, three of which lived, but her passion for Gottfried continued unabated. The first act of a secret and criminal nature was the opening her husband's desk to get money. She next opened that of a gentleman who lodged in her house. Gottfried was intimate with her husband, and she saw him frequently, but she now became enamoured of another visitor, Kasson.

By this time she began to wish her husband dead, as he was always in bad health. As his life was an incumbrance to himself and an impediment to her, she began to feel as if it would be no great sin to help him out of the world! In short, she soon poisoned him.

Gottfried loved her, but was unwilling to marry her because she had children. Her mother came to live with her, and she soon poisoned her. Soon after, she poisoned her youngest child, by spreading arsenic, on a piece of

cake which had been presented it at the burial of the grandmother : in eight days more she poisoned her eldest child; two weeks after, she poisoned her father; in ten weeks more she poisoned the only remaining child; she next poisoned a brother.

She thought every obstacle now removed, but Gottfried would not marry her; she, however determined to marry him, and succeeded in obtaining his promise, but she began to dislike him for his refusal, and seized an opportunity and poisoned him; and while on his death-bed, she sent for a priest to marry them, so that she might make sure of the property!

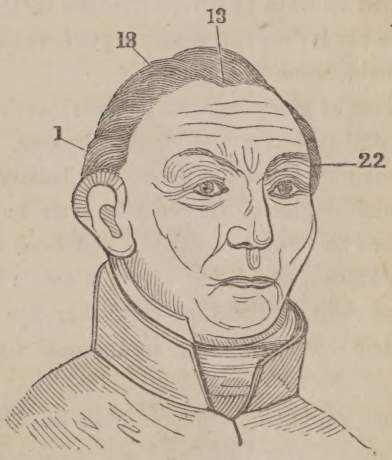
She seemed now to delight in murder, and the slightest cause seemed enough to decide upon the death or life of any of her relations. She next poisoned her acquaintances, without visible motive. At last she was discovered, convicted, and executed.

This career of crime and concealment was carried on for more than twenty years, commencing with the unlawful indulgence of a passion for one man when she was the wife of another, and then in breaking into her husband's desk, stealing his money, then stealing from others, and then poisoning. Is it not reasonable to suppose that in this time the organs of secretiveness and destructiveness, which now appear so prominent, increased in size, and that the very distinct depression at conscientiousness had been produced by the great activity of firmness and cautiousness, and the constant disregard and neglect of the exercise of conscientiousness? It was unlawful love, and not destructiveness, which furnished the motive to the first murder. But in time, so active had secretiveness and destructiveness become, that she seemed to delight in her monstrous acts.

CHAPTER XLVIII.

BLACK HAWK, AN INDIAN CHIEF AND WARRIOR.

FIGURE XXV. — HEAD OF BLACK HAWK.



1. *General form of head*, &c. This head and face have the characteristic form of the red man; but with so much of the balancing organization of the better class of white men, that in him you see the Indian character in its best light. The head is large, and is such as should belong to a chief or leader. He could never act a second part.

2. *Domestic feelings.* — From the portrait of him we cannot determine the size of the organs of the domestic feelings. He never had but one wife, and had several children. Besides this, he adopted a child of his friend.

He remarks upon losing two children, "this was a hard stroke, because I loved my children." And he gave all he had away, blacked his face, and fasted and lived in retirement two years, drinking water but once a day and eating boiled corn at sunset. Notwithstanding the wandering life of an Indian warrior, he loved the place of his birth. When about to be driven from his village, he says, "I would rather lay my bones with my fathers than remove for *any* consideration."

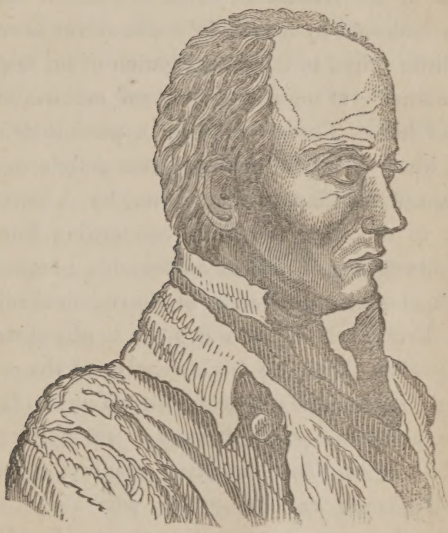
But his love of glory (approbativeness) acting through his large combativeness and destructiveness, is the absorbing passion of his soul. If we will believe his story, he distinguished himself by wounding an enemy at fifteen. Before he was thirty-five he had been in thirteen or fourteen battles, and killed with his own hand thirty-five. These were all killed in battle, for, says he, "it is not brave, but cowardly, to kill an unarmed and helpless enemy."

His higher sentiments seem to have been active, especially *firmness*, *reverence*, and *marvellousness*. From his complaints of the whites, it would seem that conscientiousness is not deficient. "The Americans make fair promises, but never fulfil." He believed in dreams and supernatural communications, and frequently consulted the Prophet. He constantly speaks with great reverence of the Good Spirit, whom he seems to have individualized very distinctly. He had very little cautiousness in his character.

CHAPTER XLIX.

BRIEF NOTICE OF DR. GALL.

FIGURE XXVI. — HEAD OF DR. GALL.



DR. GALL is thus described by a gentleman who visited him in 1826. "I found him," says the gentleman, "a man of middle stature, of an outline well proportioned, — he was thin and rather pallid, and possessed a capacious head and chest. The peculiar brilliancy of his penetrating eye left an indelible impression. His countenance was remarkable; his features strongly marked, and rather large, yet devoid of coarseness. The general impression that a first glance was calculated to convey would be,

that Dr. Gall was a man of originality and depth of mind, possessing much urbanity, with some self-esteem and inflexibility of design."

His organization, it will be seen from the drawing, indicates the firm, honest, independent, kind-hearted man, who had great powers of observation and a quick perception of the relation of cause and effect. He was admirably endowed by nature for a discoverer in science, but very little suited to the promulgation of his doctrines. He was learned yet unostentatious, and careless of what was said of him. There was never a particle of quackery about him. It would give me great delight to give a full account of his life and discoveries, but I have room here only to record a few facts concerning him. He was born March 9th, 1757, of respectable parents; and received his medical education at the medical school of Vienna. From early age he was given to observation, as appears from the history of his discovery of the organ of Language. He became physician of the Lunatic Hospital in Vienna, and had charge of many of the hospitals and other public institutions, requiring medical superintendence. His house was open to any, who wished to converse with him upon his peculiar views. In 1796, he delivered his first private lectures. He spoke then of the brain as the general organ of the mind, of the necessity of considering the brain as divided into different special organs, and of the possibility of determining those organs by the development of individual parts of the brain, exhibited in the external configuration of the head. He also spoke of several organs which he had then discovered. The facts which he from time to time collected occupy several volumes, and are soon to be given to the Ameri-

can public. In 1802, the Austrian government issued an order prohibiting all private lectures, unless under license. Dr. Gall ceased lecturing till 1805, when he and Spurzheim commenced travelling and lecturing together. Having visited most of the principal cities of Europe, they in 1807 arrived in Paris, where in November Dr. Gall, assisted by Dr. Spurzheim, delivered his first course of public lectures in that city. Here Dr. Gall continued until his death, in 1828, in the 72d year of his age. Here, too, he acquired an honorable reputation as a physician, writer, and philosopher. His remains were followed to the grave by an immense concourse of friends and admirers, five of whom pronounced discourses over it, as is the custom in France.

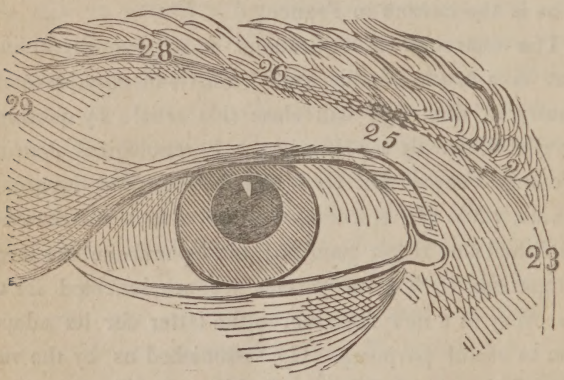
The character of Spurzheim is so generally known, that in a work of this kind I must omit any particular history of him, and will close this article by quoting a parallel drawn by a writer in the Phrenological Journal. We might say of Dr. Gall, that he possessed the greater genius, while Dr. Spurzheim is the most acute reasoner. [Gall had the larger causality and Spurzheim the larger comparison.] To the former we are indebted for the discovery of a new doctrine, to the latter for its adaptation to useful purposes. Gall astonished us by the vastness of his schemes of mental philosophy, Spurzheim by the attractions with which he adorned it. Gall possessed all the genius that commands respect, and Spurzheim the amiability of disposition that ever ensures it.

CHAPTER L.

REMARKS ON THE BEST METHOD OF NOTICING SOME OF THE PERCEPTIVE ORGANS.

MANY people say that they can easily see the location of the large organs, but declare their inability to give any judgments about the small organs, such as size, weight, color, order, and number. To assist such, as far as I am able, I have given the following enlarged view of an eye and eyebrow, by which the situation of these organs will appear quite distinct.

FIGURE XXVI. — AN EYE.



The organs of Size and Weight and Resistance are to be noticed as large, by a prominence or an enlargement of this region of the forehead, making a slight angle at the centre of the eyebrow, and seeming to form a large root to the nose. When Color is large, the eyebrow is greatly arched, and also prominent. Order and Number when large show an angle from the centre outward; and these sometimes appear as prominences.

CHAPTER LI.

CHANGE OF CHARACTER AND TALENTS, AND A SIMULTANEOUS CHANGE OF THE FORM OF THE HEAD.

GREAT changes in moral character and talents sometimes manifest themselves in individuals, and the question is put to the Phrenologist, whether the head changes to a corresponding extent? This question requires a very candid and considerate answer.

1. It is important to remark upon the nature of the change which takes place in character, before we attempt to account for it, by a change in the size of organs.

The first change is that which takes place before the individual arrives at maturity. During this forming period of character, great changes often take place, especially in those who are about equally inclined to good and to evil practices. The different parts of character develope themselves just as circumstances draw them out at the usual age of their manifestation. More than twenty-five of the primitive faculties show themselves during the first eighteen months, others appear at subsequent periods, and different groups claim ascendency at different times. As to all the changes of this period, there can be no question, that the shape of the head will change as the character changes. However, at this period, the organs change much in relative activity, without an *equally* corresponding change in size. Those organs which have never been excited by their appropriate objects will have been less active, than those which have had abundant exercise; but commence the exercise of the organs by the stimulus of their own objects, and you draw them at once into

activity, and as they become active the structure improves as well as increases in size. We must not suppose that there is no other difference in cerebral organs but that of size. The differences in *perfection of structure, and tendency to activity*, arising from habits of exercise, are quite as great as those of activity. Hence, judgments formed of the strength of particular faculties, without inquiry as to the education they have received, are liable to error.

2. Alterations, which take place in the character of individuals after they arrive at maturity, are seldom any more than a change in the objects on which the faculties act. When this is the case, no change in the form of the head is to be expected. The faculty which respects talents, office, rank, and wealth, adores the Deity, and he that has turned from the worship of idols to the worship of the only true God, has brought into action no new organ; and unless he worship with more fervor, his reverence will not be increased in activity.

3. Changes in the form of head are only to be expected where there has been a great change in the degree of activity of organs. If organs, which have been very active, cease to be so, while others, which have been idle, are drawn into great activity, then, in a few years, we may in many instances be able to notice a change. This embraces the several classes of cases.

1. Where an individual is not advanced beyond the meridian of life, and has become very thoughtful and studious for a few years, giving great exercise to the reflective organs, they will perceptibly increase in size. There are several facts which go to prove this. So, where individuals have been suddenly changed from situations, which did not give much exercise and excitement to the perceptive or-

gans, to those which required great exercise and activity of them, we may expect a sudden growth of those organs.

But these cases are so rare, and the changes are so gradual, that much pains should be taken to collect the facts with accuracy. Mr. Deville has been engaged in taking casts of individuals at different periods and ages, for the purpose of making comparisons.

I have several facts founded, not upon observations made from comparison of casts, but still they are such as to be entitled to our confidence. A young artist of my acquaintance had formerly been a dealer in dry goods, and a few years since commenced the business of portrait painting. He had been absent for several years from his mother; when on a visit to her, she called him up to her, and observing every part of his countenance carefully, said, "Your forehead has altered in form since I saw you, all the lower part of it seems to be pushed out." This was the careful observation of a fond mother, when tracing out the lineaments of a beloved son. It was no doubt true. Nearly all the perceptive organs are now very decidedly large; and he says they have increased in size, since he commenced his new vocation. Young men in cities, it will be found, have greater power and activity in the perceptive organs, than those who have always been in country situations. There is a constantly changing succession of objects in cities, which give ample scope and stimulus to these organs. These rapid changes are unfavorable to quiet reflection, hence the knowing organs acquire a great ascendancy.

I have noticed in very many instances, that experienced navigators have the organs of locality very prominent, and probably in consequence of great exercise of them. So with blind people, these organs become very large. It is

the case of a blind man in Boston, who travels in every part of the city without a guide.

3. A third class of cases is that in which a change takes place in the feelings, as where some one or two feelings become exceedingly and almost morbidly active for many years, as in the case of destructiveness and secretiveness in G. M. Gottfried. Also, in consequence of some great shock to some feeling, as to adhesiveness, self-esteem, hope, or love of approbation, there may be a change in the form of the head in the regions of those organs.

I have in hundreds of instances seen very striking depressions in the heads of persons of mature years, but seldom in the heads of children. These depressions are most frequent at the localities of those organs, which are most liable to great neglect or suffering.

It is not to be supposed that changes in the form of the scull externally, will be co-extensive with every slight change in the habits of thought and feeling. The *organs may change greatly in activity*, without such a change in volume externally as to be noticeable. The organs most used may be contiguous to others most neglected. In such a case, the one would be diminished as the other increased. Neither protuberances nor depressions are to be looked for in ordinary cases. The practised phrenologist does not need them to enable him either to find the location of the organs, or the innate dispositions and talents. They are rather to be regarded as rare occurrences and curiosities, which have enabled Gall, Spurzheim, and others, to conjecture the location of organs, which have since been proved by thousands of well observed facts, not less conclusive, although less peculiar.

End

SEP 5 1900